

## Advances: Jurnal Ekonomi & Bisnis

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# Productivity in the workplace and Its relation to physical and Intangible factors

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Received: 2023-05-04 Accepted: 2023-06-29

Available online: 2023-06-30

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KEYWORDS	ABSTRACT
<p><b>Keywords:</b></p> <p>Physical Work Environment; Non-Physical Work Environment; Employee Productivity.</p> <p><b>Conflict of Interest Statement:</b></p> <p>The author(s) declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.</p> <p>Copyright © 2023 AHRMR. All rights reserved.</p>	<p>The purpose of this study was to determine and analyze the effect of physical and non-physical work environment on employee productivity. The population of this study consisted of fifty employees of Samsung Experience Store Jayapura. The census sampling method was used to determine the sample size of this study, so that all population members were used as samples. The data source used is primary data, which is data collected directly from respondents through questionnaires by researchers. Descriptive statistical analysis, validity and reliability test, normality test, autocorrelation test, heteroscedasticity test, multicollinearity test, and hypothesis testing through multiple linear regression analysis, partial test, simultaneous test, and coefficient of determination test will be part of the data analysis procedure. The findings of this study indicate that physical and non-physical work environment variables have a positive influence on the work productivity of Samsung Experience Store Jayapura employees. The findings of this study indicate that the physical and non-physical work environment has a positive and statistically significant influence on the work productivity of Samsung Experience Store Jayapura employees.</p>

## Introduction

Every organization invariably possesses a set of objectives, among which is the pursuit of substantial financial gains that can facilitate the attainment of other corporate goals. To accomplish these objectives, two primary elements are essential: human resources, specifically personnel, and the presence of a supportive infrastructure (Triana, 2016). The successful realization of a work organization's vision, mission, and organizational goals is contingent upon the availability of sufficient resources, both in terms of quantity and quality, regardless of the sophistication and comprehensiveness of the supporting facilities possessed by the organization. According to Sedarmayanti (2009), work productivity is a crucial aspect of human resource management. To attain optimal productivity, a business must prioritize both the physical and non-physical elements of its environment. The human resources department plays a significant role in ensuring the presence of a capable workforce that can effectively fill diverse jobs, including those related to tenure and rank, to attain organizational objectives. A substandard physical environment can induce susceptibility to illness among employees, heighten their susceptibility to stress, impede their ability to focus and diminish their overall effectiveness. The discomfort of the workstation, including factors such as high temperatures, insufficient air circulation, overcrowding, uncleanliness, and noise, significantly impacts the level of comfort experienced by employees and thus affects their work performance. To enhance workplace comfort, several measures can be taken, including the upkeep of physical

infrastructure, such as ensuring cleanliness is consistently maintained, providing sufficient lighting, ensuring proper air ventilation, including pleasant music, and establishing a comfortable layout. The provision of company facilities has a direct impact on staff morale, resulting in increased production. One recurring challenge encountered by firms pertains to the enhancement and sustenance of a favorable work environment (Cintia & Gilang, 2016).

Sattar et al. (2021) identified multiple factors that have the potential to influence employee work productivity. These factors include: The purpose of job training is to provide employees with the necessary skills and knowledge to effectively utilize work equipment. Hence, the necessity for work training arises not just as a supplementary measure, but also to impart fundamental information. Training is a process by which individuals acquire the knowledge and skills necessary to do tasks accurately and efficiently, hence reducing or eliminating errors that may have occurred. 2. The cognitive and physiological capacities of personnel. The well-being of employees, encompassing both their mental and physical states, is a critical consideration for organizations due to the strong correlation between employee well-being and job productivity. The dynamics of the relationship between individuals in positions of authority and those under their supervision. The dynamic between individuals in positions of authority and those under their supervision has a significant impact on day-to-day operations. How do individuals in positions of authority perceive those under their supervision, and to what degree are those under their supervision involved in the process of establishing objectives? The integration of attitudes has demonstrated the capacity to enhance employee productivity inside the workplace. According to Sutrisno (2016), when employees are treated favorably, they are more likely to actively engage in the production process, hence influencing the overall level of job productivity.

According to Wahyuni (2018), various factors contribute to a decline in job productivity. The phenomenon of decreasing attendance. The lack of advance notice by company executives regarding a decrease in attendance might impede the successful execution of work programs. If a significant number of employees are absent without explanation, it will hinder the progress of subsequent work. In the case that this occurs, the organization will incur financial losses that may be mitigated by proactively averting a decline in attendance. 2. Enhance labor turnover rates (elevated labor mobility). If employees do not experience the anticipated level of pleasure, it may indicate their initial inclination to seek employment elsewhere, with the expectation of finding better amenities. This, in turn, can lead to detrimental consequences for the organization. The level of harm has experienced an escalation. When employees exhibit a lack of motivation to fulfill their job duties due to a disparity between anticipated outcomes and actual circumstances, it typically leads to a decline in accuracy and a diminished sense of accountability for work outcomes. Consequently, this often results in the occurrence of errors during task execution, which ultimately leads to damages that surpass the usual thresholds.

Numerous scholars have conducted investigations on the impact of both physical and non-physical work environments on employee productivity. For instance, Heny (2016), Hura et al. (2021), and Rozi and Syaikhudin (2020) have all demonstrated the substantial influence of the physical work environment and non-physical work environment on employee productivity. According to a study conducted by Norianggono et al. (2019), it has been found that the physical work environment factor has a substantial impact and yields a good outcome on employee performance factors. Conversely, the non-physical work environment factor has been seen to have a minor effect on employee performance measures.

## Literature Review

Human resources are humans who work in organizations (also called personnel, workforce, workers or employees) who act as organizational drivers as well as assets in business organizations in realizing organizational existence (Nawawi, 2008; Joseph, 2016). Human resources are seen as an increasingly large role for the success of an organization, so many organizations now realize that the human element in the organization can provide a competitive advantage (Sitepu et al., 2020). Human resources are central in efforts to realize their existence in the form of achieving organizational goals. The ability of these human resources must be able to adapt to the demands of advances in science

and technology, government policies and environmental changes. From this description it can be understood that human resources play an important role in various service activities to obtain benefits according to the level of achievement of organizational goals (Putri et al., 2019).

Nitisemito (2006) defines the work environment as everything that surrounds workers who can influence them in carrying out their assigned tasks. The work environment in a company is very important to be considered in management. Although the work environment does not carry out the production process in a company, the work environment has a direct influence on the employees who carry out the production process. A centralized work environment for its employees can improve performance. Conversely, an inadequate work environment will reduce performance. Then vice versa, if the work environment is inadequate, it will be able to reduce performance and ultimately reduce employee motivation. Noorainy (2017) explains that although the physical environment is believed to be not the main factor in increasing employee productivity, physical environmental factors are variables that need to be considered by management experts in their influence to increase productivity. Meanwhile, Virgiyanti (2018) states that broadly speaking, the types of work environment are divided into two, namely: physical work environment and non-physical work environment.

According to Handoko (2012), the physical work environment encompasses all tangible elements present in the workplace that have the potential to impact employees directly or indirectly. The physical work environment can be classified into two distinct types. The initial category pertains to the physical surroundings that immediately impact and are near employees, encompassing elements such as furniture, such as tables, and chairs. The second category pertains to the intermediate environment, sometimes referred to as the general environment, which encompasses the work environment and its impact on human circumstances. This includes factors such as temperature, humidity, air circulation, lighting, noise, mechanical vibration, disagreeable scents, colors, and various other elements. The physical environment plays a significant role in both facilitating and hindering job performance. It has the potential to impact workers, particularly in terms of their psychological well-being. This influence can manifest in either positive or negative outcomes (Wahyudi et al., 2020). Rivalita (2020) provides an explanation of the physical environment as a category of environment that pertains to the tangible aspects of the work environment. The factors to consider when examining a workplace include its location (whether it is inside or outdoors), the kind of task being performed, the scheduling of working and rest periods, the availability and quality of work equipment, as well as the climate and temperature within the workspace. 2) The influence of lighting conditions. 3) The circumstances of ventilation. 4) Environmental Noise Conditions. 5) Hazardous and detrimental elements.

According to Hartati (2020), the non-physical work environment encompasses the various situations that pertain to work relationships, including interactions with supervisors, colleagues, and subordinates. The consideration of the non-physical environment is crucial, as it has the potential to impact employee performance significantly. The organization should possess the capability to generate. In the study conducted by Sinambela (2016), it was observed that the non-physical environment refers to a psychological work environment that eludes direct perception by human senses yet can be subjectively experienced. The intangible work environment elicits emotional responses.

According to Sentoso (2001), it is imperative for firm management to cultivate a climate and work environment that fosters a sense of camaraderie among employees to effectively pursue shared objectives. The ability to foster initiative and originality should also be present inside the company's management. Conditions such as these serve to foster a sense of passion and cohesion within the organizational structure of the company, facilitating the pursuit and attainment of goals. The ability of humans to effectively engage in their activities and attain optimal outcomes is contingent upon experiencing suitable environmental conditions. The adequacy of an environmental state is determined by its ability to facilitate optimal performance, well-being, safety, and comfort for human individuals. The long-term consequences of an incompatible work environment can be observed. In addition, suboptimal environmental conditions need increased energy and time consumption, hence hindering the development of an effective operational framework.

According to Ibrahim et al. (2022), the International Labor Organization defines productivity as the assessment of output about input. According to this concept, production is initiated by two fundamental elements: inputs and outputs. According to Muchdarsyah Sinungan, the concept of productivity can be elucidated as the correlation between tangible outcomes (such as commodities or services) and the corresponding inputs. Productivity can be defined as a metric that quantifies the level of productive efficiency. This essay aims to provide a comparative analysis of output and input. The input is frequently constrained to labor input, whereas the result is assessed in terms of physical units about shape and value. As to Mora's (2020) research, productivity can be characterized as the degree of effectiveness in the production of commodities and services. Productivity refers to the efficient utilization of resources in the production of things. Productivity is assessed not solely based on the input-output ratio, but also by the quantity of outcomes achieved through the effective exploitation of available resources. Productivity encompasses not only the outcomes achieved in the production of goods and services but also the capacity of the existing human resources.

According to Sedarmayanti (2009), labor productivity is influenced by six primary factors. These elements include: One aspect of work behavior that may be examined is work attitude, which encompasses factors such as the willingness to work in shifts, the ability to accept more tasks, and the capacity to collaborate well within a team. The skill level is ascertained by the acquisition of training and education in supervision management, as well as proficiency in industrial procedures. The correlation between the workforce and the leadership of a business is manifested in the collaborative endeavors undertaken by both parties to enhance productivity through the implementation of quality control circles. Productivity management refers to the effective administration of work resources and systems to enhance productivity. One aspect that contributes to labor efficiency is the effective management of labor resources, which includes labor planning and the allocation of new work. 6) Entrepreneurship encompasses the willingness to take risks, the ability to think creatively in the context of business, and the capacity to navigate the correct path in the realm of commerce.

Based on the background, problem formulation and theory in this study, the hypothesis in this study is as follows:

H<sub>1</sub>: The physical work environment has a significant positive effect on employee productivity.

H<sub>2</sub>: Non-physical work environment has a significant positive effect on employee productivity.

## Research Design and Methodology

The present study falls within the category of quantitative research. The sample size of this study was limited to 50 employees of Samsung Experience Store Jayapura, reflecting the small population available for analysis. The major data utilized in this study was gathered directly from respondents through the completion of questionnaires.

**Table 1.** Operational Variable

Variable	Code	Indicator	Major Reference
Physical Environment	X1.1	Air state	(Rozi & Syaikhudin, 2020; Sugiono & Pratista, 2019)
	X1.2	Noise	
	X1.3	Vibration	
	X1.4	Lighting	
	X1.5	Room arrangement	
Non-Physical Environment	X2.1	Supervision	(Hura et al., 2021; Trian, 2016)
	X2.2	Working atmosphere	
	X2.3	Reward system	
	X2.4	Good treatment	
	X2.5	Harmonious relationship	
	X2.6	Fair and objective	
Work Productivity	Y1.1	Working quantity	(Hidayatullah & Tjahjawi, 2017; Purwanti & Musadieuq, 2017)
	Y1.2	Quality of work	
	Y1.3	Timeliness	

These questionnaires included personal information and responses provided by the respondents. In this study, a Likert scale consisting of five alternative replies was employed to measure each variable indicator. The scale included the following options: "Strongly agree" (scored as 5), "Agree"

(scored as 4), "Disagree" (scored as 3), "Disagree" (scored as 2), and "Strongly disagree" (scored as 1). The acquired data will undergo analysis through multiple phases of testing. The initial step is performing a descriptive statistical analysis. The subsequent phase involves conducting a validity test and a reliability test on the study data instrument. The third stage involves doing the traditional assumption test, which includes assessing normality, heteroscedasticity, multicollinearity, and autocorrelation. The fourth stage of this study involves the testing of all hypotheses put forward. These hypotheses will be evaluated using several statistical tests, including the partial test (t test), simultaneous test (f test), and coefficient of determination test.

## Findings and Discussion

### Findings

Respondents in this study were employees of the Samsung Experience Store Jayapura, totaling 50 people grouped by gender and age. For more details, the characteristics of respondents in this study will be described one by one in table 2.

**Table 2.** Respondent Demographic Data

Variable	Measurement	n	%
Gender	Man	21	56%
	Woman	29	54%
Age	20-29 Tahun	38	58%
	30-40 Tahun	8	32%
	>50	4	10%

From Table 2, it is known that the characteristics of respondents based on gender are 50 respondents consisting of women, namely 22 people (54%), while 28 people (56%) of other respondents are men. While the characteristics based on age are divided into three groups representing the age group of respondents. The largest number of respondents was in the age group 20-29 years or 58%, then the group aged 30-40 years was 16 people or 32%, then the remaining age group over 50 years was 5 people or 10%.

The first stage of testing carried out is descriptive statistical analysis. Descriptive analysis method is a statistical method used to analyze the data that has been collected. The descriptive method is intended to describe or describe the object data under study. The results of the statistical description of the research variables consisting of Physical Work Environment (X1), Non-Physical Work Environment (X2), and Employee Productivity (Y), are shown in table 3.

**Table 3.** Descriptive Statistics

	N	Min	Max	Sum	Mean	Std. Deviation
Employee Productivity	50	2.00	5.00	3.9767	.51399	4.137
Physical Work Environment	50	2.09	4.55	3.2782	.48189	4.464
Non-Physical Work Environment	50	2.00	4.86	3.9086	.55798	
Valid N (listwise)	50					

From table 3, the results of the statistical description of the research variables consisting of the Physical Work Environment (X1) with a total of 50 data (N), have an average of 3.27% with a minimum value of 1.91 and a maximum of 5.0 with a standardized deviation of 0.48189. The Non-Physical Work Environment variable (X2) with a total of 50 data (N) has an average of 3.90% with a minimum value of 2.00 and a maximum of 4.86, with a standardized deviation of 0.5579. The employee productivity variable (Y) with a total of 50 data (N) has an average of 3.976 with a minimum value of 2.00 and a maximum of 5.0, with a standardized deviation of 0.5579.

The second stage is to conduct a data quality test consisting of validity and reliability tests. This test is carried out to test the validity and reliability of each statement item in measuring variables. This test is used by comparing the r count and r table. If r count is greater, then the statement item is said to be valid and vice versa if r count is smaller than r table then the statement item is said to be invalid. The basis for decision making in the reliability test in this study is if the Cronbach's Alpha

( $\alpha$ ) value is  $> 0.60$ , the questionnaire is declared reliable or consistent. The test results are presented in table 4.

**Table 4.** Validity and Reliability Test Results

Variable	Instrument	r-calculated	Cronbach Alpha	Result
X1	X1.1	0.273	0.819	Valid dan reliable
	X1.2	0.488		Valid dan reliable
	X1.3	0.619		Valid dan reliable
	X1.4	0.627		Valid dan reliable
	X1.5	0.602		Valid dan reliable
	X1.6	0.434		Valid dan reliable
	X1.7	0.590		Valid dan reliable
	X1.8	0.660		Valid dan reliable
	X1.9	0.556		Valid dan reliable
	X1.10	0.488		Valid dan reliable
	X1.11	0.396		Valid dan reliable
X2	X2.1	0.560	0.698	Valid dan reliable
	X2.2	0.532		Valid dan reliable
	X2.3	0.608		Valid dan reliable
	X2.4	0.690		Valid dan reliable
	X2.5	0.668		Valid dan reliable
	X2.6	0.603		Valid dan reliable
	X2.7	0.602		Valid dan reliable
Y	Y1.1	0.759	0.819	Valid dan reliable
	Y1.2	0.709		Valid dan reliable
	Y1.3	0.783		Valid dan reliable
	Y1.4	0.707		Valid dan reliable
	Y1.5	0.697		Valid dan reliable
	Y1.6	0.722		Valid dan reliable

Based on table 4, the correlation value for the items with their total score is compared with the r table value with a significant 0.05 with a 2-sided test and the amount of data ( $n = 50 - 2 = 48$ ), then obtained r table of 0.278 the results of the validity analysis on the independent and dependent variables of all the total items above are greater than r table so that it can be said to be valid. While the reliability test results in the table show that all variables in the study have a large alpha coefficient of  $> 0.6$  so that it can be said that all concepts measuring each variable from the questionnaire are reliable, which means that the questionnaire used in this study is a reliable questionnaire.

The third stage is the calculus assumption test which consists of testing normality, heteroscedasticity, autocorrelation, and multicollinearity. The normality test is carried out to see whether the dependent variable and the independent variable in the regression model both have a normal distribution or not. A good regression model is a normally distributed regression model. The test results are presented in Figure 1.



**Figure 1.** Normality Test Results

From Figure 1, the data spreads around the diagonal line and follows the direction of the diagonal line, so it can be concluded that the data distribution is normal. Furthermore, the autocorrelation test



aims to determine whether in a linear regression model there is a correlation between confounding errors in period  $t$  and errors in period  $t-1$  (previous). If there is a correlation, it is called an autocorrelation problem. The test results are presented in table 5.

**Table 5.** Autocorrelation Test Results (Model Summary<sup>b</sup>)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.629 <sup>a</sup>	.479	.457	.37869	2.098

From the output results in table 5, the DW value generated from the regression model is 1.030. Meanwhile, from the DW table with a significance of 0.05 and the amount of data  $n$  (50), and  $k = 2$   $k$  (is the number of independent variables)  $(50 - 2) = 48$ , the  $dL$  value is 1.4500 and  $dU$  is 1.6231. Because the DW value (2.098) is outside the  $dL$  and  $dU$  regions, it produces a definite conclusion (around no autocorrelation).

Furthermore, a multicollinearity test is carried out to see whether there is a high correlation between the independent variables in a multiple linear regression model. To test multicollinearity, it can be seen from the tolerance value and VIF (Variance Inflation Factor) value. If the VIF value is not more than 10 and the tolerance value is not less than 0.1, the model can be said to be free from multicollinearity. The test results can be seen in table 6.

**Table 6.** Multicollinearity Test Results

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Physical Work Environment	.743	1.328
Non-Physical Work Environment	.753	1.328

Based on the findings shown in Table 6, it can be inferred that the Variance Inflation Factor (VIF) values for five variables, specifically Physical Work Environment ( $X_1$ ) and Non-Physical Work Environment ( $X_2$ ), are below the threshold of 5. Additionally, the Tolerance values for these variables are not less than 1. It can be asserted that the regression model is devoid of multicollinearity issues. In addition, the heteroscedasticity test is conducted to assess whether there is a departure from the classical assumption of heteroscedasticity, which refers to the presence of unequal variances in the residuals across all data in the regression model. One necessary condition for the regression model is the lack of symptoms indicating heteroscedasticity. The test methodology employed in this study is the Glesjer Test. The test results are displayed in Table 7.

**Table 7.** Heteroscedasticity Test Results (Coefficients<sup>a</sup>)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.145	.267		.544	.589
Physical Work Environment	.118	.079	.244	1.488	.143
Non-Physical Work Environment	-.063	.068	-.151	-.918	.363

a. Dependent Variable: ABS\_RES\_1

Based on the findings shown in Table 7, it is evident that the  $p$ -values associated with the two independent variables exceed the threshold of 0.05. Therefore, it may be inferred that the regression model does not exhibit any heteroscedasticity issue. Once the classical assumption test has been conducted and the overall findings indicate that the regression model satisfies the classical assumptions, the subsequent step involves assessing and interpreting the multiple regression model. The application of multiple linear regression analysis is employed to examine the correlation between Physical Work Environment ( $X_1$ ), Non-Physical Work Environment ( $X_2$ ), and employee productivity ( $Y$ ). Table 8 displays the outcomes of the regression analysis computed utilizing the Statistical Package for the Social Sciences (SPSS).

**Table 8.** Multiple Linear Regression Analysis Results (Coefficients<sup>a</sup>)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.1203	.435		2.765	.008
	Physical Work Environment	.237	.129	.222	1.829	.074
	Non-Physical Work Environment	.511	.112	.555	4.576	.000

From the results of the analysis with the help of SPSS in table 8, the regression equation can be written as follows:

$$Y = 1.203 + 0.237 X_1 + 0.511 X_2$$

The multiple linear regression equation provides a comprehensive explanation of the constant term, which is determined to be 1,203. This value signifies that in the absence of any influence from the Physical Work Environment and Non-Physical Work Environment factors, the employee productivity is estimated to be 1,203. The coefficient value for the Physical Work Environment is 0.237, indicating that a 1% increase in the Physical Work Environment is associated with a 23.7% increase in employee productivity. Assuming all other variables remain constant. The coefficient value for the non-physical work environment is 0.511, indicating that a 1% increase in the physical work environment is associated with a 51.1% increase in employee productivity. Assuming all other variables remain constant.

The t Statistical Test assesses the extent to which an independent variable independently accounts for the variability seen in the dependent variable. The statistical analysis employed in this study involved conducting a t test to assess the significance of the obtained t value in relation to a predetermined  $\alpha$  level of 0.05. If the t significant value of the Physical Work Environment and Non-Physical Work Environment exceeds the predetermined significance level of  $\alpha = 0.05$ , the null hypothesis ( $H_0$ ) is accepted and the alternative hypothesis ( $H_a$ ) is rejected. Conversely, if the t significance value is less than or equal to  $\alpha = 0.05$ , the null hypothesis is rejected and the alternative hypothesis is accepted. The test results are presented in Table 9.

**Table 9.** Hypothesis Test Results (t-test) (Coefficients<sup>a</sup>)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.1203	.435		2.765	.008
	Physical Work Environment	.237	.129	.222	1.829	.074
	Non-Physical Work Environment	.511	.112	.555	4.576	.000

The variable "Physical Work Environment" ( $X_1$ ) has a t-value of 4.366, indicating a statistically significant relationship. The associated significance probability value is 0.000. When the value of t is less than the predetermined significance level  $\alpha$  (0.05), it can be concluded that there is a statistically significant and positive relationship between the Physical Work Environment and employee productivity. The theory asserting that "The physical work environment exerts a positive and significant impact on employee productivity" has been demonstrated to be accepted. The non-physical work environment ( $X_2$ ) has a t-value of 4.707, accompanied with a significant probability value of 0.000. If the value of t is statistically significant at a level of significance  $\alpha$  (0.05), then the alternative hypothesis  $H_a$  is accepted. This implies that there exists a noteworthy correlation between the intangible aspects of the work environment and the level of productivity exhibited by employees. The theory suggesting that the non-physical work environment positively and significantly impacts employee productivity has been shown to be supported and accepted.

The F statistical test assesses whether the inclusion of both independent and dependent variables in a model collectively impacts the dependent variable. The F test assesses the efficacy of the independent variables, specifically the Physical Work Environment and the Non-Physical Work Environment, in elucidating the variances observed in the dependent variable, namely employee productivity. Table 10 displays the test results for the F test (simultaneous).



**Table 10.** Test Results F - Simultaneous (ANOVA<sup>a</sup>)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.205	2	3.102	21.634	.000 <sup>b</sup>
	Residual	6.740	47	.143		
	Total	12.945	49			

Based on the results of data processing in table 10, obtained F-count = 21,634 and has a significance level of 0.000. Because the probability of 0.000 is much smaller than 0.05, it can be said that the regression model that has been used can increase the productivity of Samsung Experience Store Jayapura employees together and has a positive and significant effect. Furthermore, the coefficient of determination analysis is used to determine how much the ability of the model in the study explains the dependent variable. The analysis results can be seen in table 11.

**Table 11.** Coefficient of Determination Test Results (Model Summary<sup>b</sup>)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 <sup>a</sup>	.479	.457	.37869

Based on table 9, it is known that the coefficient of determination ( $R^2$ ) = 0.479, which indicates that the variation of employee productivity can be influenced by the Physical Work environment and the Non-Physical Work environment by 47.9%, while the remaining 52.1% is influenced by other factors not included in this study.

### **Discussion**

Physical Work Environment encompasses all the tangible elements of the workplace in which employees carry out their tasks. The factors encompassed in this category encompass various aspects, including the arrangement of the physical space, the quality and intensity of illumination, the ambient temperature, the level of noise, the arrangement of objects, and the general level of comfort and safety within the work environment. Several factors have a substantial impact on the performance and productivity of employees. The presence of a conducive and pleasant work environment has been found to have a positive impact on the overall well-being of employees. Various factors, including optimal ventilation, sufficient illumination, and favorable temperatures, can contribute to the mitigation of physical exhaustion and the minimization of potential hazards or health complications. There is a positive correlation between the well-being and comfort of employees and their productivity levels. A setting characterized by minimal noise and the absence of distractions might enhance employees' ability to maintain focus and concentration on their assigned jobs. In addition to mitigating visual distractions, cleanliness and effective arrangement can contribute to the reduction of visual clutter. The implementation of an engaging and pioneering work environment design has the potential to enhance employee motivation and foster innovation. The presence of inspirational artwork, vibrant workspaces, and efficiently arranged workplaces has the potential to cultivate a good ambiance and foster the generation of novel ideas. The implementation of workplace designs that promote employee engagement has been shown to enhance collaboration and foster effective teamwork. Adequately built open spaces or meeting rooms have the potential to enhance the exchange of ideas and promote efficient communication. The presence of a positive and nurturing work environment has the potential to enhance employee satisfaction levels. Research has shown that employees who perceive themselves as respected and supported by their organization are more likely to exhibit higher levels of job satisfaction, leading to increased employee retention rates, reduced turnover, and enhanced productivity. Safety measures such as sufficient illumination and effective spatial arrangement can contribute to the mitigation of occupational hazards and the prevention of work-related incidents and bodily harm. Companies can mitigate the negative impact on production resulting from employee absences caused by injuries or accidents by establishing a secure work environment. The results of this study are in line with previous research named (Eka et al., 2016; Tarigan et al., 2022) which states that the physical work environment has a positive and significant effect on employee productivity.

The Non-Physical Work Environment encompasses various dimensions of the work environment, such as psychological, social, and emotional factors, which have the potential to influence employee

behavior and performance. These characteristics are mostly associated with company culture, managerial practices, social interactions, and the quality of working relationships among employees. The presence of a conducive non-physical work environment has the potential to yield favorable outcomes in terms of employee productivity. A conducive and nurturing non-physical work environment will foster a favorable ambiance within the office, thereby motivating people to perform optimally. The establishment of a healthy business culture and effective management of non-physical work environment elements are crucial for firms, as they contribute to enhancing employee productivity and well-being. The results of this study are in line with research (Rozi & Syaikhudin, 2020) which shows that the non-physical work environment has a positive and significant effect on employee productivity. However, this is contrary to research (Nurrulloh, 2018), with the results of research that the non-physical environment consisting of indicators: social status, information system factors, and work relationship factors in the organization show an insignificant relationship to work productivity.

## Conclusion

The physical work environment exerts a notable positive influence on employee productivity. Various factors, including sufficient illumination, effective spatial arrangements, pleasant temperatures, and secure work settings, can enhance the well-being of employees and mitigate physical exhaustion, visual disturbances, and potential health hazards. Furthermore, the implementation of an aesthetically pleasing and stimulating work environment design has the potential to enhance employee motivation and foster a culture of creativity and collaboration. The influence of the Non-Physical Work Environment on employee productivity is significant. The presence of a favorable organizational culture, proficient leadership, and robust social support systems have the potential to enhance employee morale and satisfaction. However, it is important to note that additional research has shown contrasting findings for certain components of the Non-Physical Work Environment. Specifically, some studies have indicated that factors such as social status, information systems, and work relationships may not exhibit a statistically significant association with employee productivity.

The present study posits a theoretical proposition for future researchers, suggesting that their investigations could be directed towards a deeper exploration of the optimal room design features that yield the most efficacy, or alternatively, towards examining the impact of inspirational art in fostering a stimulating work environment. Furthermore, it is imperative to consider the potential variances among industries or sectors in this research to obtain a more thorough understanding of the impact of the Physical Work Environment on employee productivity. When doing an analysis of the Non-Physical Work Environment, it is imperative for future study to go further into the strategies that firms can take to establish a corporate culture that fosters productivity. Additionally, exploring the impact of leadership styles on employee motivation and performance warrants further investigation.

This study also indicates that Samsung Experience Store Jayapura may benefit from considering many factors such as appropriate office lighting, effective layout, pleasant temperature, and a secure working environment. These considerations can enhance employee well-being, mitigate physical weariness, minimize visual distractions, and reduce potential health hazards. This suggestion is made based on the assumption that an aesthetically pleasing and stimulating design of the work environment has the potential to enhance employee motivation, foster innovation, promote collaboration, and ultimately lead to increased productivity among employees.

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