

AN EFFECT OF WORK ENVIRONMENT TO EMPLOYEE PERFORMANCE

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ABSTRACT

An aim of this research was to test impact of work environment toward employee performance. The approach in this study was using quantitative and cross sectional design. Sampling method was using saturated sampling method. Data collecting technique to test hypothesis was using questioner. Confirmatory factor analysis was used to test instrument validity, and cronbach's alpha correlation was used to test reliability. Simple linear regression was used to test research hypothesis. The result was showed consistent with another research which work environment has positive impact toward employee performance.

Keywords: *work environment, employee performance, and direct labor.*

INTRODUCTION

Background

Human resources were an important part in achieving organizational goals, both large and small companies, even when the company has modern equipment with high technology. Given the increasingly tight competition between companies, today requires companies to be able to survive and compete with other companies, one of the things that companies can do to be able to survive in the tight competition was to manage its human resources. The role of human resources in the company was very important, because as the main driver of all activities or activities of the company in achieving its objectives, both to obtain profits, and to maintain the survival of the company.

The success or failure of a company in maintaining the existence of a company starts from the man himself in maintaining the company to increase its effectiveness and efficiency to the maximum. In other words, the performance of an organization or company was strongly influenced, and even depends on the quality and competitive ability of its human resources. Performance was a function of motivation and ability. To complete a task or job someone should have a certain level of ability. A person's skills were not effective enough to do something without a clear understanding of what was being done and how to do it.

The level of success of a company can be seen from the company's performance in managing its resources. Companies with good performance, have effectiveness in managing human resources, as well as determining goals that must be achieved, both individually and in organizations. The company in an effort to realize the company's goals, one of which was to have employees who have good performance.

Employee performance was the result of work achieved by a person in carrying out a task in accordance with the responsibilities assigned to them. Employees can work well if they have high performance, so that organizational goals were expected to be achieved. Conversely, organizational goals are difficult or even cannot be achieved if the employees do not have good performance, so they cannot produce good work. The influence of employee performance was very large in determining work performance and achieving organizational goals.

Environment was one of the factors that cannot be eliminated in life activities, because all activities were in the environment. One factor that influences employee performance was the work environment. Work environment must be in accordance with the needs of employees, so that employees can be more maximal in completing their tasks and work. Work environment of a company was very important to be considered by management.

Although, the work environment does not carry out the production process in a company, but the work environment has a direct influence on the employees who carry out the production process. Work environments that focus attention on employees can improve performance. Conversely, work environments that were not or inadequate can reduce employee motivation, and ultimately can reduce employee performance.

Work environment was an inseparable part and type and location of work, where individual employees are located and active. Employee productivity from work depends on the place and environment where the individual employees work. Therefore, the work environment needs to get very serious and primary attention because it was the second home after residence. Work environment must be a concern, considering that most of the time each day was spent at work. Work environments that were not suitable will cause disruption to employees in the work environment and ultimately also affect productivity. A work environment that does not conducive and does not support the implementation of employee work activities will affect the level of success of employees towards their work. Likewise with the availability of facilities that will not affect the effectiveness and efficiency of employee work time.

Problem

Ketchup was one of the cooking ingredients that is often used for cooking in households and food stalls, and restaurants. This makes soy sauce an important requirement in complementing a food, both as a complement to the dish and as a blend of a dish. Seeing the opportunities for many soy sauce markets and was one of the important things in complementing cuisine, encouraging the growth of the soy sauce industry. The development of soy sauce industry was very diverse, ranging from large industries to small industries that make soy sauce. The number of soy sauce industries was quite large due to not including soy sauce business which was still classified as small scale in each region. Ketchup industry competition was very high, given the many ketchup industries built.

Ketchup "Tawon" Madiun was a company whose products were in the form of soy sauce, soy sauce and tauco. The ketchup "Tawon" company which was established in 1940 has a marketing network in Madiun, Ngawi, Magetan, Ponorogo, Bojonegoro, Nganjuk, Surakarta, Malang, Jombang and Kediri. As one of the medium-scale soy sauce industries, Ketchup "Tawon" has a number of human resources, both directly and indirectly who contribute to the company. In connection with the description of the background, this study will test an effect of the work environment to employee performance on direct workers in the Ketchup "Tawon" Company.

Objective and Benefit

An aims of this study to determine the effect of work environment on employee performance in direct labor in the Ketchup "Tawon" Company. Meanwhile, the benefits of this study were expected: a) as a basis for scientific references in the academic world related to management science, especially human resource management, as well as; and b) provide input for management in increasing employee performance from aspects of the work environment.

LITERATURE REVIEW

Work Environment

The company must try to create a harmonious work climate. A harmonious work environment was not only the hope of the management, but also all of employees in the company. A harmonious work environment will bring benefits to the company, including the emergence of good work discipline from employees, thus impacting employee performance.

Work environment was designed to create working relationships that bind employees to their environment. A good work environment was if employees can carry out activities optimally, healthily, safely and comfortably. Poor work environments can demand more workforce and time and do not support obtaining an efficient work system design.

Work environment was very influential on work effectiveness and orientation, so the work environment will provide a new atmosphere for their which will have an effect on the successful implementation of their tasks and work^[1]. Work environment was the whole tool and material tool faced by the surrounding environment, where: (a) someone works, (b) the method works, and (c) the work arrangements, both as individuals and as a group^[2]. A work environment condition can be said to be good if humans can carry out an activity in an optimal, healthy, safe, and comfortable manner. Humans will be able to carry out their activities properly, so that an optimal result was achieved, if one was supported by an appropriate environmental condition.

The suitability of the work environment can be seen in the long term, and furthermore the work environment that was not good causes more time to be used and does not support the acquisition of an efficient work system design. This was because the pattern of the work environment was a pattern of organizational actions that affect the effectiveness of the organization directly or indirectly, which includes performance and productivity, absenteeism and turnover, and organizational membership. This type of work environment is divided into two types^[2]:

1. Physical work environment

Physical work environment was all of physical conditions that were in the vicinity of the workplace, so that they can influence employees, both directly and indirectly. Physical work environment was divided into two (2) categories

- a. Direct work environment was interconnected with employees, example: tables, chairs, wardrobes, rooms, work centers and other.
- b. Medium work environment as an environment that can influence human conditions, such as: noise, odor, humidity, temperature, air temperature and room color.

In order to reduce the impact on the influence of the physical environment on employees, the initial steps that must be considered and studied are human beings themselves, by knowing the physical and human behavior, and that was used as a rationale for the physical work environment.

2. Non physical work environment

Non physical work environment was all of situations that occur and related to work relationships, both with superiors and fellow employees and subordinates, so that non-physical work environment must be considered by management.

Work environment was one of the external factors that were very influential in supporting maximum work results in every job. If the work environment was less conducive, it will cause employee performance to decrease because of the lack of work motivation that comes from within the employee to work well. These factors can cause work risks in the form of accidents, and or diseases related to their work. In other words, work environment affects employee performance. The benefits of work environment was to create employee motivation at work, so that productivity and work performance increase^[3]. Benefits gained by working with motivated people were:

- a. The work can be completed properly, so that employees can complete the work or task in accordance with the correct standards and on a predetermined time scale.
- b. Employee work performance will be directly monitored by the individual concerned and will not provide much impact on supervision that can cause employee morale or motivation to increase.

Employee Performance

Human resources were a very important factor in the management of a company. It was needed so that the company can manage its organization optimally, so that it can support the achievement of company objectives. Employee performance was a major problem in a company. Satisfactory performance of employees does not occur by itself and instantly, but continuous evaluation was needed.

Employee performance really needs to be known, because with performance will be known how far the ability of employees in carrying out the tasks that were charged to them. For this reason, it was necessary to determine criteria that were clear and measurable and jointly determined which serve as a reference in work.

Employee performance was the result or work performance of employees who were assessed in terms of quality and quantity based on work standards determined by the company^[4]. Employee performance was a qualitative and quantitative work result achieved by employees in carrying out their duties in accordance with the responsibilities given by the company^[5].

The measurement of important employee performance was carried out by the company. The purpose of performance measurement was to find out whether employees were able to complete their obligations in accordance with a predetermined time or whether employees deviate from a predetermined plan or whether the performance results achieved by employees were as expected by the company. Employee performance measurement can be carried out on real and measurable performance. Therefore, a quantitative or quantifiable performance measure was needed. A job can be measured through the quantity and quality of work, timeliness, presence and ability to collaborate^[4].

Employee performance assessment was an important part of the entire work process of the employee concerned. It was important for the company where the employee works. For employees, the assessment acts as feedback about various things, such as: abilities, strengths, weaknesses, and potential which in turn were useful for determining goals, plans and career development. For companies, the assessment results were very important role in decision making about various things, such as: identification of the needs of education and training programs, recruitment, selection, recognition, placement, promotion, reward systems and various other aspects of the process of human resource management effective.

Every performance achievement was always followed by acquisition that has value for the employees concerned, both in the form of wages, promotions, reprimands and better jobs. To be able to increase employee performance, the management needs to pay attention to the factors that influence it. Factors that influence employee performance: education, skills, work discipline, culture, work ethics, management, income level, opportunities for achievement, workload, work environment, and technology^[6]. These factors

should be a major concern for the leadership and management, so that employee performance can be optimized.

Hypothesis

Humans as the main drivers of the company in achieving company goals were resources that cannot be replaced with other equipment. However, rapid the development of technology, but if it was not supported by quality human resources, the results will not be as expected. Therefore, the maintenance of labour was absolutely necessary, both moral and physical. With a good work environment and can meet the needs of employees, and then employees will automatically realize their responsibilities to the company.

It can be used as a factor to improve employee morale. A good work environment can be useful to prevent work saturation and loss to the company, so that with a work environment that supports and fulfilled employee needs, it can increase employee performance. The main objective of a company was to achieve maximum profits; these benefits will be achieved if there was high work productivity. Meanwhile, it will be achieved if there was employee morale at work. For it reason, a good work environment was needed. Work environment for employees will have an impact that was not small for the operation of the company, because it can directly affect employee morale, which in turn affects employee performance.

A pleasant work environment for employees can cause a sense of pleasure in working, so that they avoid boredom and fatigue at work. Whereas, work environment that cannot be fulfilled according to employee work needs can cause boredom and fatigue, so that it will reduce employee morale, which ultimately employees do not carry out their duties effectively and efficiently, and have an impact on performance.

Work environment was something it was around the employee and that affects them in carrying out the tasks that were charged^[7]. Indicator in measuring work environment: cleanliness in the workplace, adequate lighting, good air circulation, safety in the workplace, noise in the workplace, as well as completeness of equipment and machinery.

Work environment was one of the factors that can affect an employee's performance^[8]. The point was that an employee, who was working in a work environment with full support for them to work optimally, will produce satisfactory or good results. But on the contrary, if an employee was working in an environment it was considered inappropriate and not full of support for them to work optimally, then the results of employee performance will be unsatisfactory (low), as employees become lazy, often fall asleep and other negative things.

Every company will always strive to increase employee performance, in the hope that what the company's goals will be achieved. Employee capabilities were reflected in performance, because good performance was optimal performance. Employee performance was one of the capitals for the company to achieve its goals, so that employee performance needs to be considered by the company leader. Employee performance was the result of work in quantity and quality achieved by employees in carrying out their duties in accordance with the responsibilities given to them^[5]. Indicators of employee performance include employee motivation in doing work, employee orientation in the future, employee role to get a position in the community, use of time at work, suitability between the time given by the company and the tasks that must be completed by employees, the level of accuracy of employees in completing employment, the level of skill of

employees in doing work, the level of neatness and cleanliness of employees in completing work results, conformity between the amount of work and the standards set by the company, the level of speed of employees in completing extra work, and harmonious relationships with fellow employees.

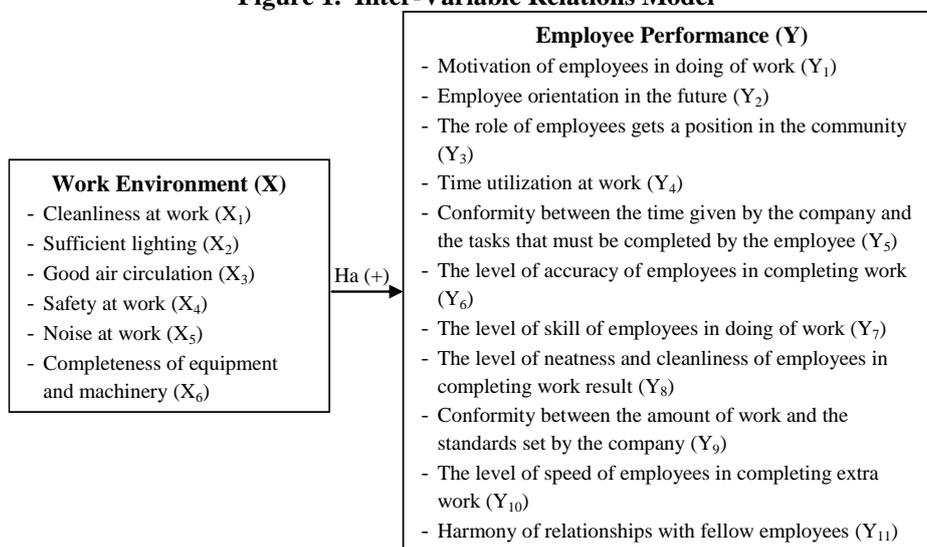
The results of research by Suwondo and Sutanto^[9], Norianggono and Ruhana^[10], Agastia^[11], Rahmawanti, Swasto and Prasetya^[12], and Sofyan^[13] indicates work environment has a positive influence on employee performance. Formation of work environment related to human ability and performance was influenced by physical, chemical, biological, physiological, mental, and socioeconomic factors.

Genetically, every individual has the ability to adapt to the environment, through certain behavioural patterns to deal with environmental problems. However, the formation of a work environment that supports employee performance will lead to job satisfaction for employees. Work environment was very influential on the work done by employees, so that every company must strive to work environment in such a way as to have a positive influence on the work done by employees. Based on it, the research hypothesis can be formulated:

Ho: There was no influence on work environment on employee performance.

Ha: There was influence of work environment on employee performance.

Figure 1. Inter-Variable Relations Model



RESEARCH METHODS

Research Design

This study uses a quantitative approach with cross sectional design. Cross sectional research was observation only done once according to the time determined by the researcher by looking at the relationship between dependent and independent variables^[14]. In this study, researchers conducted research by distributing questionnaires to respondents at the same time or period.

Population and Sample

The population of this study was all direct labor in the Ketchup "Tawon" Company, which consisted of: cooking section (13 people), pressing section (12 people), bottle washing section (8 people), bottle filling section (6 people), bottle closure section (6 people) and label installation section (15 people). The number of direct labor were 60 people, so that the sample of this study amounted to 60 people. All direct labor were a research sample.

Sampling Technique

Sampling uses saturated sampling technique, which was a sample determination technique if all members of the population were used as research samples^[15].

Research Data

This study uses primary data derived from respondents' answers to test research problems.

Data Collection Technique

In this study, data collection techniques for testing hypotheses using questionnaires, namely data collection techniques carried out by giving a set of questions or written statements to respondents to be answered^[14]. The questionnaire used to test the research hypothesis uses a closed question, which is a questionnaire that was prepared by providing a complete answer option, so that the respondent only gives a mark on the answer he chose.

Variable and Instrument

1. Work Environment

The independent variable (X) of work environment was measured using an instrument developed from Nitisemito^[7] through six indicators: cleanliness at work, adequate lighting, good air circulation, safety at work, noise in the workplace, and equipment completeness and machines. Measurement of work environment variable indicators using a five-item Likert scale between (1) very satisfying to (5) very unsatisfactory for X₁ to X₄ and X₆; and for X₅ with (1) very noisy until (5) very noisy developed from Soeprianto^[16].

2. Employee Performance

The dependent variable of employee performance (Y) was measured using instruments developed from Mangkunegara^[5] through eleven indicators: employee motivation in doing work, future employee orientation, employee role to get a position in the community, time utilization in the workplace, compatibility between the time given by the company with the tasks that must be completed by the employee, the level of accuracy of the employee in completing the work, the level of skill of employees in doing work, the level of neatness and cleanliness of employees in completing work, the suitability between the amount of work with the standards set by the company, the level of speed of employees in completing extra work, and the harmony of relationships with fellow employees. The measurement of the employee performance variable indicator uses a five-item Likert scale between (1) very good to (5) very poorly developed from Soeprianto^[16].

Validity and Reliability Test

A measurement instrument was called valid if the instrument can measure something exactly what is being measured. The instrument validity test was conducted to test the accuracy (validity) of each instrument item. In this research, the instrument validity test uses Confirmatory Factor Analysis (CFA), which was a process of identifying constructs that were relevant to certain phenomena^[17]. This study uses a value of loading factor of 0,40, so that if the indicator was greater than

the value λ was considered valid. According to Hair et al^[18], the loading factor value of 0,4 was considered to be better and in accordance with the rule of thumb. Validity testing in this study uses the SPSS program.

A measurement instrument was said to be reliable if the measurement was consistent and accurate. Instrument reliability test was carried out with the aim to determine the consistency of the instrument as a measuring instrument, so the results of a measurement can be trusted. In this study, reliability testing was carried out using the Cronbach's alpha correlation, the process of identifying the reliability and consistency of research instruments. The correlation value of cronbach's alpha which is considered acceptable between 0.6 - 0.8^[19]. Reliability testing in this study uses the SPSS program.

Data Analysis Technique

To find out the effect of work environment on employee performance, it was done using simple linear regression which was processed using the SPSS program. Mathematically the simple linear regression equation was formulated: $Y = a + bX + e$.

Information:

Y = employee performance

X = work environment

a = constant

b = coefficient of work environment

e = error term

The data obtained in this study will be analyzed using inferential statistics. Testing the hypothesis in this study using the t test which was comparing the significance value of t_{count} with t_{table} ^[15], the assumption:

- If the value of $t_{count} > t_{table}$, so H_a was accepted.
- If the value of $t_{count} \leq t_{table}$, so H_a was rejected.

RESULT AND DISCUSSION

Result

Characteristics of respondents were grouped by gender, age, level of education, and length of service. The result indicates that 63% of direct labour was women and 37% were men. It indicates that most of the direct workforce was women, because women were

more diligent in working, thorough, diligent, and patient and want neat and clean work when compared to men. Direct labour in the age group of 20-30 years was 17%, age 30-40 years were 63%, and age 40-50 years were 20%. Respondents with primary education level of 13%, junior high school by 23%, and high school by 63%. The work period of respondents was less than 1 year by 0%, between 1 to 2 years by 17%, and more than 2 years by 83%.

Based on Table 1 indicates that the respondent's mean of the work environment were 20,96% with a standard deviation of 180,96%. Meanwhile, the respondent's mean of employee performance were 41,10% with a standard deviation of 193.60%. It indicates that the perception of 60 respondents to work environment and employee performance was very high.

Table 1. Descriptive Statistics

Variable	Mean	Std. Deviation	N
Y	411,000	1.936	60
X	209,667	18.096	60

Table 2 indicates the six indicators of the work environment variable there were two indicators whose value below the loading factor of 0,4: X_4 and X_5 . Whereas, from the eleven indicators of employee performance variables there were three indicators whose values were below the loading factor of 0,4: Y_2 , Y_3 and Y_{11} . Therefore, the five indicators were not included in the next test, because they do not have validity according to the rule of thumb.

The reliability test results in table 2 which use the cronbach's alpha correlation indicate that the alpha value for the work environment variable was 0,826 and the employee performance variable was 0,919. This indicates the two variables were reliable.

Table 2. Validity and Reliability Test Result

Variable	Loading Factor	Cronbach's Alpha	Result
X		0,826	Reliable
X ₁	0,735		Valid
X ₂	0,824		Valid
X ₃	0,928		Valid
X ₄	0,375		Invalid
X ₅	0,223		Invalid
X ₆	0,851		Valid

Variable	Loading Factor	Cronbach's Alpha	Result
Y		0,919	Reliable
Y ₁	0,893		Valid
Y ₂	0,260		Invalid
Y ₃	0,356		Invalid
Y ₄	0,925		Valid
Y ₅	0,896		Valid
Y ₆	0,856		Valid
Y ₇	0,847		Valid
Y ₈	0,831		Valid
Y ₉	0,881		Valid
Y ₁₀	0,936		Valid
Y ₁₁	0,362		Invalid

To find out the effect of work environment on employee performance, the calculation was done by simple linear regression on table 3.

Table 3. Result of Linear Regression

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	15.983	1.247		12.829	.000
	X	.539	.125	.521	5.291	.000

^a Dependent Variable Y

Based on table 3, simple linear regression equation:

$$Y = a + bX + e$$

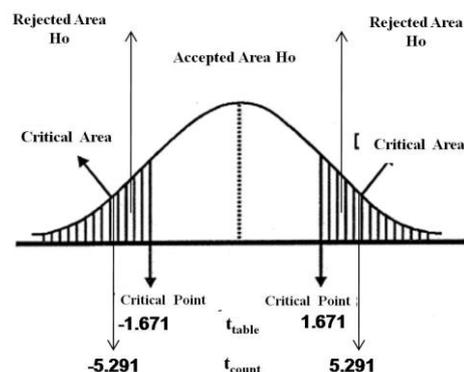
$$Y = 15,983 + 0,539 X + 0,125$$

The equations can be interpreted:

- The constant (a) were 15,983 it meaning that if there was no change in the work environment, so the employee performance will remain at 15,983.
- The regression coefficient (b) X was 0,539 it meaning that each increase of 1% works environment, so it will increase employee performance by 53.9%.
- The standard error of 0,125 it means that the deviation of data against the regression line was very low.

To test the hypothesis in this study, use the t test at a confidence level of 95% or an error rate (alpha) of 5%. T test was done to determine the effect of independent variables on the dependent variable partially. The stages of testing the research hypothesis are:

- Determine the hypothesis
 Ho : There was no influence on work environment on employee performance.
 Ha : There was influence of work environment on employee performance.
- Determine significant levels
 Significant level using $\alpha = 5\%$ (significance 5% or 0,05).
- Determine t_{count}
 Based on Table 4, the t_{count} value was 5.291.
- Determine t_{table}
 The confidence interval was 95% with an error rate (alpha) α of 5% or 0.05. This test uses two tail tests with a degree of freedom (df) of 58 and obtained a value of t table of 1,671.
- Testing criteria
 - If the value of $t_{count} > t_{table}$, so Ha was accepted and Ho was rejected. It means there was an effect of work environment on employee performance.
 - If the value of $t_{count} \leq t_{table}$, so Ha was rejected and Ho was accepted. It means there was no an effect of work environment on employee performance.
- Critical area



g. Decision

The value of $t_{count} > t_{table}$ was $5,291 > 1,291$, so H_a was accepted and H_o was rejected.

h. Conclusion

H_a was accepted, it means there was an effect of work environment on employee performance.

Discussion

Based on the results of testing the hypothesis indicates the work environment has a significant positive effect on employee performance. The results of this study were consistent with the results of research conducted by Suwondo and Sutanto^[9], Norianggono and Ruhana^[10], Agastia^[11], Rahmawanti, Swasto and Prasetya^[12], and Sofyan^[13]. Work environment was very important to be the focus of attention for companies^[20]. As a good management, although the work environment does not carry out the production process in a company, work environment has a direct influence on employees who carry out the production process.

Work environment was an environment where employees do their daily work^[21]. Work environment as one of the important factors that affect employee performance. Work environment was everything that was around employees that can affect employees in carrying out their work, for example noise, cleanliness and comfort of the workspace and so on. If the work environment was not good, such as a narrow, dirty, hot workspace, then it was possible for employees to work less optimally, making employees difficult to focus on their work, even more likely to cause increased employee stress, higher absenteeism, employee emotional become uncontrolled, so that employee productivity decreases and causes companies to become difficult to develop. In fact, with an unfavorable work environment, not a few employees choose to quit the company and look for a new workplace, just because they do not get job satisfaction in the company and this has a negative impact on the company.

However, if the work environment in a company was good, the infrastructure was adequate, the work space was clean, all of items in the workspace were neatly arranged, the room was cool, air ventilation was good, the relationship between individuals was good,

friendly and caring attitude was applied, so provide convenience to employees in carrying out the tasks that were charged by the company, so it was possible for employees in the company to provide optimal performance, which in turn will make employees more inspiring and productive, provide high job performance, so they will be able to develop their companies with effective and efficient.

FINALITY

Conclusion

Based on the results and discussion, so conclusions of the research: 1) the validity test indicates there were five invalid variable indicators (two indicators of work environment variable, and three indicators of employee performance variables) because the validity value does not match the rule of tumb of 0.4, so it does not included in the next test. However, the results of the reliability test indicate the two research variables were reliable. 2) The results of the simple linear regression equation indicates the work environment variable regression coefficient of 0,539 it means every 1% increase works environment, it will increase employee performance of 53.9%. And, 3) the results of testing the hypothesis with simple linear regression indicates the value of $t_{count} > t_{table}$, it means H_a was accepted and H_o was rejected. H_a was accepted it means there was an effect of work environment on employee performance. The results of this study were consistent with the results of previous studies, that the work environment has a direct influence on employees who carry out the production process.

Recommendation

Based on the research that has been done, suggestions can be given as follows: 1) respondents of this study were only direct labor, namely employees who were in charge of directly handling the soy sauce production process. Subsequent research was also expected to portray indirect labor, because it was expected to provide a description of the work environment and employee performance from another perspective. 2) Indicators work environment variables developed from Nitisemito^[7] and employee performance

variable indicators developed from Mangkunegara^[5]. Further research can use variable indicators from other researchers to enrich the perspective of work environment and employee performance. 3) Work environment variables in this study do not divide into the classification of physical work environment and non physical work environment. Subsequent research can divide work environment variables into physical work environment and non physical work environment^[22]. Physical work environment was everything that was around the workers that can affect them in carrying out the tasks that were charged. Meanwhile, non physical work environment was all of the circumstances that occur relating to work relationships, both relationships with superiors and relationships with colleagues, or relationships with subordinates^[2]. 4) It was expected that the leadership or management of the Ketchup "Tawon" Company, so that the performance of employees (especially direct labor) continues to be improved, by improving the quality of the work environment. Basically the performance of the Ketchup "Tawon" Company was good, but there were several factors that management needs to pay attention to, such as: cleanliness at work, adequate lighting, good air circulation, safety at work, noise at work, and completeness of equipment and machinery, so that employees can maximize their work in achieving production targets. 5) To improve better work productivity, it was recommended that the management or management of the Ketchup "Tawon" Company also pay attention to other factors, for example: motivation, job satisfaction, and social security.

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