The Implementation of Occupational Health and Safety Management System (OHS Management System) to Improve Human Resource Development Performance

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ABSTRACT

This research emphasizes Human Resource Development Performance existence which is not as expected, one of the causes is the OHS Management System. Our research aims to explain the performance of human resource development by looking at the impact of Occupational Health and Safety systems, work stress caused and how motivational the role of management is. This research was conducted to produce a Model and the results of the analysis of the Occupational Health and Safety System (OHS MANAGEMENT SYSTEM) associated with HR Development Performance, with 80 research subjects as employees of PT.PLN Pesero APD Central Java and DIY. This research used quantitative research methods that use Descriptive Statistics and analysis of the effect of each variable using the Partial Least Square (PLS) technique. Based on the results of the calculation of Q square obtained Q square value of 0.60. This showed that the Q square value was greater than 0.5 which means it could be said that the factor of OHS management system, Work Stress and OHS Management Motivation has a good prediction level on the Performance of Human Resources Management. The disadvantage of this study is that because the employees are employees of PT PLN Pesero APD Central Java and DIY, the location of the study always changes depending on the working area. In addition, working conditions and situations greatly affect when subjects fill out questionnaires, bearing in mind that their assignments are very heavy because they are related to the regulation of the electricity load for the Network throughout Indonesia.

Keywords: *OHS Management System, Job Stress, Motivation for OHS management*

INTRODUCTION

Work is expected by most people. Nothing is meaningless in this life, including the existence of work. By working, people can socialize and communicate with others. But by working too, one can apply the knowledge and work skills. It is a long-term career preparation of someone for this case (16). So that the scope of further human resource development is related to the career system applied by the organization and how existing human resources can access the existing system in order to support its work expectations (16).

Research (14) states in the results of his research that the risk of accidents and work safety can only occur in the manufacture of glass, namely the extreme risks associated with open electrical panels and scattered cables that endanger employees in addition it has high risk. Likewise, research (11) on Occupational Health and Safety (OHS) on the implementation of the project, that OHS is strongly influenced not only by human error but by structure. This research will take the object of research, namely the employees of the State Electric Enterprise (PLN) distribution in Central Java and Yogyakarta. The reason is that PLN distribution is a company owned by the state and in the context of providing electricity procurement services to the community. So that with this research, it is expected to help solve service problems to consumers, and provide additional knowledge and solutions to the many complaints of OSH cases in PLN Central Java and DIY Distribution.

The purposes of this study are: a) To examine the effect of the applied Occupational Health

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and Safety Management System of Employee's Motivation which in this case is the motivation of OHS management in employees, b) To examine the effect of Stress caused by employees' work on the motivation of OHS management in employees, ; 3) examine the effect of OHS Management Motivation, which in this case is the motivation of OHS management on the performance of human resource development, 4) influence between OHS management system and work stress on HR development performance through OHS management motivation as an intermediate variable; 5) Testing empirical best relationships for variations in the Occupational Health and Safety(OHS) System, Work Stress, Management Motivation, and HR Developer Performance.

Proposition Development, Empirical Research Model and Hypothesis Formulation

Occupational Health and Safety System (OHS MANAGEMENT SYSTEM)

Kani, et al (2013) in his research showed that there are still many workers who do not know about OHS. What is meant by OHS, how to apply OHS, and so forth. This shows that there is still a lack of attention or commitment from the contracting companies to implement the OHS program well. The results of this understanding also ultimately impacted HR development performance.

OHS requirements at work, obligations, responsibilities and sanctions as well as work guidance. The regulation on OHS Management System was updated with Government Regulation No. 70 of 2012.

Occupational Health and Safety Management System with OSH Management Motivation

In this study, the emphasis of motivation is more on Achievement Motivation Theory from McClelland. This theory states that a worker has potential energy that can be utilized depending on the motivational motivations, situations, and opportunities that exist. The needs of workers who can motivate workplace passion are: 1) The need for achievement drive to excel, excel in relation to a set of standards, wrestle for success, and 2) The need for power: the need to make people behave in a way that people (without forced) will not behave that way. Need for affiliation: a desire for friendly and close interpersonal relationships. (16)

Book (18) which reveals that OHS Management System will increase a significant influence on motivation. The more OHS Management System is successfully carried out within the company, it will have a positive influence on employee OHS Motivation Management. Empirically, the relationship between OHS Management System and motivation can be explained in research conducted by (4) Based on his research, Mahruzar found a positive and significant relationship between providing guarantees occupational safety with OSH Management Motivation. This shows that the higher the level of work safety guarantees, the motivation for OHS Management of employees is also higher and conversely the lower the level of work safety guarantees, the OHS Management Motivation is also lower with the effective contribution of work safety guarantees to OHS Management Motivation by 94.7%.

H1: There is an influence between the applied Employee Occupational Health and Safety Management System to Motivation which in this case is the motivation for OHS Management in employees.

Job Stress

Robbins (2) argues that stress is a dynamic condition in which there is an opportunity for confrontation in the context of one's desires that are perceived by someone. While Handoko, (9) conveys stress is a condition of tension that affects a person's emotions, thoughts, and conditions.

Robbins, (2) conveys more stress on the presence of physiological symptoms, namely that

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stress can create changes in metabolism, increase heart rate and respiration, increase blood pressure, cause headaches, and cause heart attacks; Psychological symptoms, such as depression, anxiety, tension, anxiety, irritability, and like to delay work; and Behavioral symptoms, including decreased productivity, increased absenteeism and increased turnover (20) and (13) that work stress caused by environmental work stress, organizational work stress and work stress personality, affect motivation. The results of his research illustrate that good stress management will have an impact on increasing employee motivation. Thus obtained a hypothesis:

H2: There is the effect of stress caused by employee work on HR management motivation

Management Motivation

In the organizational behaviour literature, various studies have indicated that motivation has a positive influence on performance. Starting from studies that have been classified as classical (14), there are positive and significant relationships between motivation and performance. However, research that examines the relationship of motivation and performance in the context of OHS Management System is quite rarely done. Thus obtained a hypothesis:

H3: There is an influence between OSH Management Motivation which in this case is the motivation of OSH management on the performance of human resource development.

HR Development Performance

Noe (14) the notion of performance is the willingness of a person or group of people to carry out an activity and perfect it according to their responsibilities with the results expected. Performance in carrying out its functions does not stand alone, but is related to job satisfaction and reward levels, influenced by the skills, abilities and individual traits. Further revealed by Simamora (17), performance is basically determined by three things, namely: (1) ability, (2) desire and (3) environment.

Luthans, Fred, and Robbins, et al (16) factors that affect performance, which in this case are related, among others, to the development of HR, namely the environment, management, work stress, motivation, the hypothesis is obtained:

H4: There is an influence between the OHS management system and work stress on the performance of HR development through the motivation of OHS management as an intermediate variable.

METHODS

Research and Action Research The Ministry of Research, Technology and Higher Education Ministry of Research and Technology will be conducted in partner companies namely PLN in Central Java and Yogyakarta Area Distribution, with 80 research subjects. We all know that something related to the installation of poles, electrical cables as a means of spreading electricity, is very risky. So that the application of the OHS Management System must be strictly adhered to, even though in its daily life there are many identified violations in terms of moving OHS rules, so this becomes an important research point. The statistics used for data analysis in the first year are descriptive statistics, which are useful for identifying OSH system problems in the Central Java and DIY areas and analysing data using PLS.

Respondents based on Gender

Gender in general can make a difference in the behavior of respondents in an organization. Respondents by sex can be seen in the following table:

Table 1. Respondents Based ox Sex

Sex	City			Sum
	Semarang	Purwokerto	Yogyakarta	
Male	36	14	18	68
	45.0%	17.5%	22.5%	85.0%
Female	10	2	0	12
	12.5%	2.5%	0.0%	15.0%
Sum	46	16	18	80
	57.5%	20.0%	22.5%	100%

Resource: Data primer diolah, 2019

Age based respondents

Age is related to the level of maturity that can affect attitudes and behavior as well as ways of thinking. Age respondents were grouped into four groups as can be seen in the following table.

Table 2. Respondents Based on Age

Usia (tahun)	Kota			Total
	Semarang	Purwokerto	Yogyakarta	
<= 30	27	13	10	50
	33.8%	16.3%	12.5%	62.5%
31 – 40	14	2	5	21
	17.5%	2.5%	6.3%	26.3%
41 - 50	2	0	1	3
	2.5%	0.0%	1.3%	3.8%
> 50	3	1	2	6
	3.8%	1.3%	2.5%	7.5%
Total	46	16	18	80
	57.5%	20.0%	22.5%	100%

Sumber:Data primer diolah, 2019

Respondents based on Education Level

Education level can be used as a benchmark from someone's intellectuals that reflects one's ability to do work. The composition of respondents based on their level of education is presented in Table 4.3:

Tabel 3. Identitas Responden menurut PendidikanTerakhir

Pendidikan	Kota			Total
	Semarang	Purwokerto	Yogyakarta	
D I	4	3	6	13
	5.0%	3.8%	7.5%	16.3%

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Pendidikan	Kota			Total
	Semarang	Purwokerto	Yogyakarta	
D III	11	4	1	16
	13.8%	5.0%	1.3%	20.0%
S1	18	2	2	22
	22.5%	2.5%	2.5%	27.5%
S2	2	0	0	2
	2.5%	0.0%	0.0%	2.5%
SLTA	11	7	9	27
	13.8%	8.8%	11.3%	33.8%
Total	46	16	18	80
	57.5%	20.0%	22.5%	100%

Sumber: Data primer diolah, 2019

Respondents Based on Work Period

The length of service of the respondent describes the length of time an employee is serving an organization or company. Respondents based on years of service are presented in the following table:

Tabel 4. Responden Berdasarkan Masa Kerja

Masa Kerja	Kota			Total
	Semarang	Purwokerto	Yogyakarta	
< 5 Tahun	11	7	7	25
	13.8%	8.8%	8.8%	31.3%
5 - 10 Tahun	20	7	4	31
	25.0%	8.8%	5.0%	38.8%
10 - 15 Tahun	9	1	4	14
	11.3%	1.3%	5.0%	17.5%
15 - 20 tahun	2	0	0	2
	2.5%	0.0%	0.0%	2.5%
> 20 Tahun	4	1	3	8
	5.0%	1.3%	3.8%	10.0%
Total	46	16	18	80
	57.5%	20.0%	22.5%	100%

Sumber: Data primer diolah, 2019

Description of Variables

Description of the research variable aims to describe respondents' perceptions of a number of indicators used in this study. Categories of respondents' perceptions are divided into 3 namely: low, medium, and high. For average scores use the following formula:

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$$\text{Skor rata-rata} = \frac{(F1 \times 1) + (F2 \times 2) + (F3 \times 3) + (F4 \times 4) + (F5 \times 5)}{\text{--}}$$

Next that divides the average score into the categories of low, medium and high. Because each region has a different number of respondents the average range of values varies using the formula:

$$\text{Kelas interval} = \frac{(\text{Titiktertinggi} - \text{Titikterendah})}{3}$$

Semarang Respondent

The number of respondents in the Semarang PLN office was 46 people, so the interval class range was

$$\text{Interval class} = \frac{(5 \times 46) - (1 \times 46)}{3} = 12.27$$

Based on the results of the formula above, the average score of Semarang respondents is divided into three categories by determining the lowest point divided by the measurement scale (46/5 = 9.2) as follows:

Ø 9.2 - 21.46 = Low

Ø 21.47 - 33.72 = Medium

Ø 33.73 46 = High

HR Development Performance Variables

Based on the results of determining the length of the interval class that has been described, a description of the research variable can be presented, namely: the average score of respondents' perceptions of the variable Performance of HR development in the Semarang PLN Office of 30.40 with the Medium category. This means that the HR development variable is still very much needed in order to improve organizational performance. The average score with a high category is on the statement "Competence owned should continue to be improved",

OSH Management Motivation Variable

Respondents 'perceptions in the Semarang Regional Office on the OSH Management Motivation variable are presented in table 5.6 as follows: shows that respondents' perceptions of the OSH management motivation variable at the PLN Semarang Office gave an average score of 33.70 in the Medium category. This shows that the motivation for OHS management in the PLN Semarang regional office is good enough. The highest average score of 36.6 with a high category is the statement "Workers make employees developing their ability to manage OHS", which means that PLN Semarang Office employees have a good motivation so that they can properly complete their duties. Furthermore, the statement "Superiors provide training to employees to improve the ability and skills of OHS", which means that PLN Semarang regional office employees get full support from the leadership in improving the ability and skills of OHS so that it is even better in completing their work.

Work Stress Variable

Respondents 'perceptions at the PLN Semarang Regional Office on Work Stress variables are presented in table 5.7 as follows: Respondents' perceptions of Work Stress variables at the Semarang

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PLN Office give an average score of 27.00 in the Medium category. This shows that employees in the Semarang regional office do not experience excessive stress in completing the tasks assigned to them. The highest average score of 30.2 in the medium category is the statement "I avoid work stress because I do not have conflicts with my supervisor or co-workers", which means that most PLN employees in Semarang Regional Office do not experience stress and can control it so the work atmosphere is very conducive.

OHS Management System Variables

Respondents 'perceptions in the Semarang Region PLN office on OHS management system variables are presented in table 5.8 as follows: shows that respondents' perceptions of OHS management system variables at the PLN Semarang Office give an average score of 35.27 with the High category. This shows that the OHS management system in the PLN Semarang regional office has been implemented very well. The highest average score of 39.6 in the medium category is the statement "I think work accidents can be avoided if they comply with Standard Operating Procedures (SOPs) in the Occupational Health and Safety Management System", which means that most PLN employees in the Semarang regional office have agreed that in order to avoid work accidents all employees must comply with SOPs in doing any work in accordance with their respective fields of duty.

Purwokerto respondents

The number of respondents in the Purwokerto PLN office was 16 people, so the interval class range was

$$\text{Kelas interval} = \frac{(5 \times 16) - (1 \times 16)}{3} = 4{,}26$$

Based on the results of the formula above, the average score of Semarang respondents is divided into three categories by determining the lowest point divided by the measurement scale (5/16 = 9.2) as follows:

Ø 3.2 - 7.46 = Low

Ø 7.47   11.72 = Medium

Ø 11.73 - 16 = High

HR Development Variable

Respondents 'perceptions at the PLN Purwokerto Region office on HR development variables are presented in table 4.5 as follows: shows that the average score of respondents' perceptions of HR development variables at PLN Purwokerto Office is 11.10 with the Medium category. This means that employees of the Purwokerto Regional PLN Office perceive the HR development that has been carried out by the organization or company so far. The highest average score with a high category is in the statement "Competence owned should continue to be improved", which means that PLN Purwokerto Office has improved employee competencies well.

OSH Management Motivation Variable

Respondents 'perceptions in the Purwokerto Region PLN office on the OHS Management Motivation variable are presented in table 5.10 as follows: shows that respondents' perceptions of the OHS management motivation variable at the PLN Office in Purwokerto give an average score of 12.70 in the Medium category. This shows that the motivation for OHS management in the Purwokerto PLN regional office is good enough. The highest average score of 12.8 with the high

category is in the statement "Superiors provide training to employees to improve the ability and skills OHS", which means PLN employees Purwokerto regional office get full support from the leadership in improving the ability and skills OHS so that more good again in completing work.

Work Stress Variable

Respondents 'perceptions at the PLN Purwokerto Regional Office on Work Stress variables are presented in table 5.11 as follows: shows that respondents' perceptions of Work Stress variables at PLN Purwokerto Office provide an average score of 10.20 with the category of Medium. This shows that employees in the Purwokerto PLN regional office do not experience excessive stress in completing the tasks assigned to them. The highest average score of 11.8 with the high category is the statement "I am not stressed at work because I have no personal problems with my family", which means that most PLN employees in Purwokerto Regional Office do not bring personal or family problems into their work. so as not to experience stress in doing work which is the responsibility of each employee.

OHS Management System Variables

Respondents 'perceptions at the PLN Purwokerto Region office on OHS management system variables are presented in table 4.12 as follows: shows that respondents' perceptions of OHS management system variables at PLN Purwokerto Office provide an average score of 12.02 with the High category. This shows that the OHS management system at PLN Purwokerto regional office has been implemented very well. The highest average score of 13.2 with the high category is the statement "I think work accidents can be avoided if they comply with Standard Operating Procedures (SOPs) in the Occupational Health and SafetyManagement System", which means that most PLN employees in Purwokerto Regional Office have agreed that to avoid work accidents all employees must comply with the SOP in doing their work in accordance with their respective fields of duty.

Yogyakarta Respondents

The number of respondents in the Yogyakarta PLN office was 18 people, so the range of class intervals was

$$\text{Class interval} = \frac{(5 \times 18) - (1 \times 18)}{3} = 4.8$$

Based on the results of the formula above, the average score of Semarang respondents is divided into three categories by determining the lowest point divided by the measurement scale (18/5 = 9.2) as follows:

Ø 3,6   8,40 = Low

Ø 8,41   13,30 = Medium

Ø 13,31   18 = Height

Based on the results of determining the length of the interval class that has been described, a research variable description can be presented, namely:

HR Development Performance Variables

Respondents 'perceptions at the PLN Yogyakarta Regional Office regarding HR development variables are presented in table 5.13 as follows: shows that the average score of respondents' perceptions of HR development variables at the PLN Yogyakarta Office is 12.60 with the Medium category. This means that the Yogyakarta Regional Office employees perceive the HR development

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that has been carried out by the organization or company is quite good. The highest average score of 14.2 with a high category is the statement "The competency held should be improved", which means that the PLN Yogyakarta Office has improved employee competencies well so that employees are expected to perform tasks as expected. While the lowest average score of 14.2 with the medium category is the statement "Employees are able to complete the tasks assigned consistently", which means that organizations or companies need to continue to pay attention and continue to provide motivation to all employees so that employees are able to complete tasks that are given consistently.

OSH Management Motivation Variable

Respondents 'perceptions at the PLN Yogyakarta Regional Office on OHS Management Motivation variables are presented in table 5.14 as follows: shows that respondents' perceptions of OHS management motivation variables at the PLN Yogyakarta Office provide an average score of 13.23 with a high category. This shows that the motivation for OHS management in the PLN Yogyakarta regional office is already good. The highest average score of 14.4 with the high category is the statement "I have the opportunity and opportunity to develop my skills and abilities in managing OHS", which means the organization or company has provided opportunities and opportunities for all employees to develop their skills and the ability of employees to manage OHS so that employees always finish work by paying attention to safety and health at work. Furthermore, in the statement "Superiors provide training to employees to improve the ability and skills of OHS", which means that employees of the PLN Yogyakarta regional office get full support from the leadership in improving the ability and skills of OHS so that it is even better in completing their work. While the lowest average score is 12.4 in the statement "The working relationship between superiors and subordinates in fostering OSH goes well and is not rigid", which means the organization or company must pay greater attention to the relationship between superiors and subordinates so that employees will feel comfortable in completing his work by paying attention to OHS.

Work Stress Variable

Respondents 'perceptions at the PLN Yogyakarta Regional Office for Work Stress variables are presented in table 15 as follows: shows that respondents' perceptions of Work Stress variables at the PLN Yogyakarta Office give an average score of 12.20 in the Medium category. This shows that employees in the PLN Yogyakarta Regional Office did not experience excessive stress in completing the tasks assigned to them. The highest average score of 13.2 in the medium category is the statement "I am not stressed at work because I have no personal problems with my family", which means that most PLN employees in Purwokerto Regional Office do not bring personal or family problems to in their work so they do not experience stress in doing work which is the responsibility of each employee.

OHS Management System Variables

Respondents 'perceptions at the PLN Yogyakarta Regional Office for OHS management system variables are presented in table 5.16 as follows: shows that respondents' perceptions of OHS management system variables at the PLN Yogyakarta Office provide an average score of 14.12 with the High category. This shows that the OHS management system at the PLN Yogyakarta regional office has been implemented very well. The highest average score of 18.2 with the high category is the statement "I will always use safety equipment to avoid work accidents", which means that most PLN employees in the Yogyakarta regional office have realized that to avoid work accidents, each employee must use safety equipment in carrying out its work. While the lowest score of 10.2 in the medium category is the statement "My workplace environment is a source of illness that can

endanger the workers", which means that every employee in completing work must really comply with all OHS rules in order to avoid not desirable as a disease and so forth.

Partial Least Square Analysis

Evaluation of Measurement Model (Outer Model)

Outer model is the relationship between latent variables and indicators. Outer model evaluation is carried out with three criteria, namely convergent validity, discriminant validity, and composite reliability.

a. Convergent Validity

Convergent Validity of the measurement model with the reflective indicator model is assessed based on the correlation between the item score / component score and the construct score calculated by PLS. Based on the results of data processing using Wrap PLS6.0, it can be seen in the table above that the Outer Model value or the correlation between constructs and variables does not initially meet convergent validity because there are still some indicators that have a loading factor of less than 0.6. After the modification as shown in Table 5.17 shows that all loading factors have values above 0.6 and have obtained a good model so that the constructs of all variables have fulfilled Convergent Validity.

b. Discriminant Validity

An evaluation of Discriminant validity is carried out to ensure that each concept of each latent variable is different from the other variables. Discriminant validity is related to the principle that different constructors' gauges should not be highly correlated. The table above shows that the value of each correlation indicator to its latent variable (construct) is higher than the correlation with other constructs, so it can be concluded that the model in this study has met the good discriminant validity criteria.
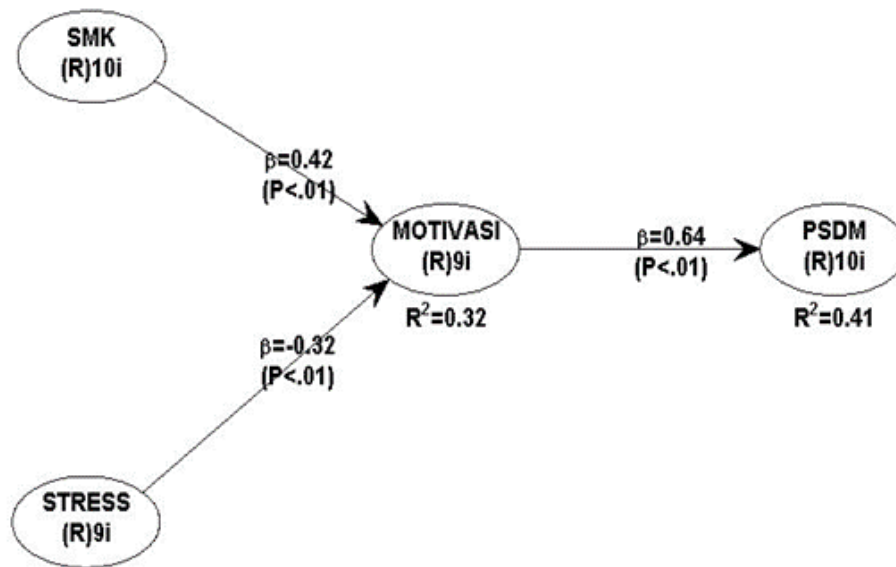
c. Reliability and Average Variance Extracted (AVE)

Validity and Reliability Criteria can also be seen from the reliability value of a construct and the value of the Average Variance Extracted (AVE) of each construct. The construct is said to have high reliability if the value is above 0.7 and AVE is above 0.50. Based on Table 5.19, it is seen that all constructs provide composite reliability values above 0.7 and Average Variance Exracted (AVE) is greater than 0.5 as recommended, so it can be concluded that all constructs meet the Reliability criteria.

Evaluation of Structural Model (Inner Model)

Structural evaluation (inner model) includes testing the goodness of the model (model fit) and R2. To assess the results of a model it is said to be fit can be seen from the general result output. Structural model testing (inner model) is done to test the relationship between construct, significance value and R-square of the research model.

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Picture 5.1. Model Struktural

Sumber: Data primer diolah, 2019

Testing the inner model or structural model is done to see the relationship between the construct, model fit, the significance value and the R-square of the research model.

a. Model Fit

Some of the criteria of Model Fit can be explained in Table 4.9 below:

Tabel 5.20 Model Fit dan KualitasIndeks

Model Fit dan Kualitas Indeks	Nilai	Syarat	Keterangan
Average path coefficient (APC)	0.462 / P=0.001	P<0.05	Baik
Average R-squared (ARS)	0.366 / P<0.001	P<0.05	Baik
Average adjusted R-squared (AARS)	0.353 / P<0.001	P<0.05	Baik
Average block VIF (AVIF)	1.018	AVIF <= 5	Baik
TenenhausGoF (GoF)	0.453	GoF>= 0.36	Baik
Sympson's paradox ratio (SPR)	1.000	SPR >= 0.7	Baik
R-squared contribution ratio (RSCR)	1.000	RSCR >= 0.9	Baik
Statistical suppression ratio (SSR)	1.000,	SSR >= 0.7	Baik
Nonlinear bivariate causality direction ratio (NLBCDR)	1.000	NLBCDR >= 0.7	Baik

Sumber: Data Primer diolah, 2019

Based on the table above shows that the value obtained meets the SEM-PLS model fit criteria, so it can be concluded that the model in this study can be accepted and can be further tested.

b. Coefficient of Determination (R-Square)

The coefficient of determination or R-square explains how much exogenous (independent/ independent) variables on the model are able to explain endogenous (dependent/ dependent) variables. Based on the results of the SEM-PLS analysis the R-square values are obtained as follows:

Tabel 5.21. Koefisien Determinan (R-Square)

Variabel	R-square
Work Motivation	0.32
Human Resource Management Performance	0.41

Sumber: Data primer diolah, 2019

This study uses 2 endogenous variables, namely OSH Management Motivation and HR Management Performance, which are influenced by several exogenous variables. From Table 5.21 shows that the R-square value for the OSH Management Motivation variable is 0.32. These results indicate that every change in the OSH Management Motivation variable can be explained by the OSH management system factor and Work Stress by 32%. While the R-square value for the HR management variable is 0.41, which means that HR management can be explained by OHS management system factors and work stress through OHS Management Motivation by 41%.

c. Predictive Relevance Analysis (Q Square)

Predictive relevance analysis (Q square) is used to describe the level of good prediction of endogenous variables, these results are determined by the regression equation, namely:

$Q2 = 1- (1 - R12) (1 - R22) \ldots\ldots\ldots\ldots\ldots\ldots (1 - Rn2)$

$Q2 = 1- (1 - 0.32) (1 - 0.41)$

$Q2 = 1- - (0.68 \times 0.59)$

$Q2 = 1 - 0.40$

$Q2 = 0.60$

Based on the results of the calculation of Q square obtained Q square value of 0.60. This shows that the Q square value is greater than 0.5 which means it can be said that the factor of OHS management system, Work Stress and OHS Management Motivation has a good prediction level on Human Resource Management Performance.

Hypothesis test

The results of testing the OSH management system hypothesis, work stress, and motivation of PLN employees can be seen in table 4.11 below:

Table 5.22.Nilai Koefisien Jalur dan Probabilitas

Variabel	Koefisien	P-Value	Keterangan
Occupational Health and Safety Management System → Motivation of Management of Occupational Health and Safety System	0,424	0,001	signifikan

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Work Stress Kerja → Motivation of Management of Occupational Health and Safety System	-0,321	0,001	signifikan
Motivation of Management of Occupational Health and Safety System → Human Resource Development Performance	0,642	0,001	signifikan

Sumber: Data Primer diolah, 2019

Based on the table above, testing the hypothesis of OHS Management System Analysis, work stress, OHS management motivation and HR Development Performance are

	Hipotesis	Hasil pengujian Hipotesis
H1	OSH management system affects the motivation of OSH management	accepted
H2	Work stress affects OSH Management Motivation	Accepted
H3	OSH Management Motivation affects HR Development Performance	accepted

Sumber: Data primer diolah, 2019

DISCUSSION

Effect of OSH management system on OSH Management Motivation

Based on the results of the first Hypothesis Test (H1) shows that the OSH management system Program Variables have a significant positive effect on employees' OHS Management Motivation. This can be explained that the better the application of the OSH management system, the higher the motivation of PLN employees. One of the implementation of the Work Safety management system is to reduce the level of work accidents / free employees from work accidents, and so on so that it can improve the quality of work life and be able to motivate employees to increase employee productivity / performance. The results of the data processing show that the OSH management system has been implemented well in the PLN area of Central Java and Yogyakarta, so that the motivation for OSH management in employees also increases. This shows that the majority of employees feel security in doing their jobs so they feel the motivation at work. The results of this study support previous research conducted by Mashudi (2012) and Munandar (2014), which found a direct and positive relationship between the Occupational Safety Program and OSH Management Motivation. In theory, as stated by Gomes (2003: 180) factors that influence OSH Management Motivation are organizational factors which consist of salary, job security, praise, and the work itself.

The effect of work stress on motivation to manage OSH

Based on the results of testing the second hypothesis (H2) OSH Management Motivation has a negative effect on OSH Management Motivation. This can be interpreted that the higher the level of employee stress perceived, the lower the OSH Management Motivation. Most employees assume that the work stress they experience makes themselves depressed so that their OSH Management Motivation is low. This statement is supported by the results of research by Sinaga et al. (2013), Wani (2013), Lal & Singh (2015), and Cendhikia et al. (2016) which concluded that there is

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a negative and significant relationship between work stress and OHS Management Motivation on employees. Role conflicts, excessive workloads and role ambiguity experienced by employees will interfere with his OSH Management Motivation. This statement is supported by the results of research Haryanti, et al. (2013) which revealed that the existence of excessive workload can cause work stress on employees. In addition, by Hon & Chen (2013) revealed that the existence of conflict in the workplace, the burden of work and work stress in general will negatively affect workshops and organizations, especially on the motivation of OSH management of its employees.

Effect of OSH Management Motivation on HR Development Performance

Based on the results of the second hypothesis testing (H3), OHS Management Motivation has a positive and significant effect on the performance of HR development. This can be interpreted that the higher the OSH Management Motivation owned by employees, the higher the desire of employees to develop themselves. According to Arep (2003) the main motivational benefit is creating work passion, so that employee performance increases. Meanwhile, the benefits gained from working with motivated people are that the work can be completed appropriately. Something that is done because there is motivation that drives it will make people happy to do it. People will feel valued / recognized, this happens because the work is really valuable to people who are motivated, so that people will work hard. The results of the data processing show that the motivation for OSH Management of PLN employees in Central Java and DIY areas is quite high, so that employees will be encouraged to develop themselves. Based on research that has been done, the results of this study support previous research conducted by Margareth (2012) and Munandar (2014), which found a direct and positive relationship between OSH Management Motivation on Employee Performance. In theory, as stated by Mangkunegara (2007: 67) factors that affect performance.

CONCLUSIONS AND SUGGESTIONS

Conclusion

H1: There is an influence between the applied Occupational Health and Safety Management System to Motivation which in this case is the motivation for managing OHS in employees. This shows that the majority of employees have felt security in doing their jobs so they feel the existence of OSH management motivation.

H2: Work stress has a negative effect on OSH Management Motivation. This can be interpreted that the higher the level of employee stress perceived, the lower the OSH Management Motivation. Most employees assume that the work stress they experience makes themselves depressed so that their OSH Management Motivation is low.

H3: Motivation has a positive effect which in this case is the motivation of OSH management on the performance of human resource development. This can be interpreted that the higher the OSH Management Motivation owned by employees, the higher the desire of employees to develop themselves. The results of the data processing show that the motivation for OSH Management of PLN employees in Central Java and DIY areas is quite high, so that employees will be encouraged to develop themselves.

H4: There is an influence between the OHS management system and work stress on the performance of HR development through the motivation of OHS management as an intermediate variable. The results of the calculation of Q square obtained Q square value of 0.60. These results indicate that the Q square value is greater than 0.5 which means it can be said that the factor of the OHS Management system, Work Stress and OHS management motivation has a good predictive

level on the Performance of Human Resource Development.

Suggestions

1. Further FGDs need to be done to explore the causes of employee work stress, bearing in mind that the results of the study show the effect of the four variables is good.
2. Further research needs to be done according to the initial plan using experimental research methods to explore work stress variables.

REFERENCES

Anizar. 2007. Teknik Keselamatan dan Kesehatan Kerja di Industri, Graha Ilmu, Yogyakarta.

Anderson, Erin, and Richard L Oliver.1987."Perspective on Behavior-Based versusOutcome-Based SalesforceControlSystems",Journal of Marketing 51(October):

Djati, S.P. 2009."VariabelAnteseden OrganizationalCitizenship Behavior dan Pengaruhnya terhadap Service Quality pada Perguruan Tinggi Swasta di Surabaya. Jurnal Aplikasi Manajemen. Vol. 7. No. 3.

Eisenberger,R.,Armeli,S.,Rexwinkel,B.,Lynck,P.D.&Rhoades,L.2001.Reciprocation of Perceive Organizatinal Support. Journalof Applied Psychology. Vol 86(1).

George,J.M.1991.StateorTrait: Effects of Positive Mood on Prosocial Behaviors at Work, Journal of Applied Psychology

Greer,Charles,R.,1995, Strategy and Human Resources, A General Managerial Perspective, Prentice-Hall, Inc, New York.

Gallagher, C. 2001. 'Health and Safety Management System, An Annalysis of System types and Effectiveness', Prentice-Hall,Inc,New York.

Hasibuan, Malayu SP., 2009, Manajemen Sumber Daya Manusia, Bumi Aksara, Jakarta.

Handoko, T.Hani, 2001, Manajemen Personalia dan Sumber Daya Manuisa, BPFE.,Yogyakarta.

Ivancevic,J.M.,2001,HumanResourceManagement, McGraw-HillCompanies, New York.

Kani, Bobby Rocky, R. J. M. Mandagi, J. P. Rantung, G. Y. Malingkas, 2013 , Keselamatan dan Kesehatan Kerja pada Pelaksanaan Proyek Konstruksi (studi kasus: proyek pt. trakindo utama), Jurnal Sipil Statik Vol.1 No.6, Mei 2013 (430-433) ISSN: 2337-6732 430 ,*https://ejournal.unsrat.ac.id/index.php/jss/article/download/…/1137*

Kreitner,Robert&AngeloKinicki,2001,OrganizationalBehavior,McGraw-Hill Companies,North America.

Newstrom, JhondanDavis Keith.1993.PerilakuDalamOrganisasi.EdisiKetujuh. Jakarta: Erlangga.

Noe, R.,A., John, R.H., Barry, G., Patrick, M.W., 2008. Manajemen Sumber Daya Manusia,mencapai Keunggulan Bersaing, Buku 1,Alih Bahasa : David Widjaja, Salemba Empat, Jakarta.

Restuputri , Dian Palupi dan Resti Prima Dyan Sari, 2015, Analisis Kecelakaan Kerja denganMenggunakan Metode *Hazard and Operability Study* (hazop), Jurnal Ilmiah Teknik Industri, Vol. 14, No. 1, Juni 2015 ISSN 1412-6869*., journals.ums.ac.id/index.php/jiti/article/download/621/361.*

Robbins, S, dan Mary C., 2002, Manajemen, Alih Bahasa : Bob Sabran & Devri barnadi Putera, PT Gelora Aksara Pratama, Jakarta.

Simamora,H.,2005,ManajemenSumber DayaManusia,STIEYKPN, Yogyakarta.

Sucipto, C.D., 2014, Keselamatan dan Kesehatan Kerja, Gosyen Publishing, Yogyakarta.

Werner, J.M., & DeSimone,R.L., 2009, Human Resource Development, United State of America: South-western CengageLearning.

Widhiastuti, H. 2010. Mengelola Stres Menjadi Suatu Kekuatan, Semarang University Press, Semarang.