

## The Influence of Human Resource Development and Supervision on Employee Performance with Workload as an Intervening Variable in the Department of Public Works and Binjai City Spatial Planning

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### Abstract

*This study aims to analyze the effect of human resource development and supervision on employee performance with workload as an intervening variable. This type of research is associative quantitative. The population of this study is 79 employees with the sample used is also 79 (saturated sample). Data collection is done by giving a questionnaire. The data source used is the primary data source. The research model used is Path analysis with the measuring tool Smart PLS version 3.3.3. The results of the study are that workload has a positive and significant effect on employee performance. Supervision has a positive and significant effect on workload. Supervision has a positive and significant effect on Employee Performance. HR development has a positive and significant effect on workload. HR development has a positive and insignificant effect on workload. Supervision has a significant and positive effect on Employee Performance through Workload. HR Development affects Employee Performance through Workload with insignificant positive value.*

**Keywords:** HR Development, Supervision, Workload, Employee Performance.

### INTRODUCTION

Competent Human Resources in a government institution. Human Resources in government are referred to as Civil Servants. Civil Servants (PNS) according to Law No.43/1999 article 1 are all efforts to increase the effectiveness, efficiency and degree of professionalism in the implementation of duties, functions and duties of staffing which include planning, procurement, quality development, placement, promotion, payroll, welfare, and dismissal (Mahendra, 2018). Therefore, it is important for a government agency to ensure that its employees are superior human beings who have good quality and are able to help the company realize its vision. Human resources become important in the success of an organization. Human resources have a very important position considering that the performance of an organization is strongly influenced by the quality of its human resources. Today's global competition makes organizations prepare various strategies for developing human resource capabilities so they can be ready to compete with other organizations.

Human resource development is basically an increase in employee performance that reflects the ability of members of the organization to work, meaning that the performance of each employee is assessed and measured according to criteria set by the organization. The development of human resources is very important in a company or organization and is important for the company's

success in achieving the desired goals. Therefore, increasing the development of human resources is absolutely necessary. In the current era of globalization, quality human resources are very much needed and become a force for companies to continue to progress and develop. Supervision is an activity to ensure or maintain that the program can be realized effectively. Each organization has a program to achieve the goals that have been set, to ensure that the organization can achieve its goals, supervision is absolutely necessary. Supervision functions to keep all levels running on the right track. Supervision is basically a strategy that focuses on process improvement with the quality of employee performance in their duties. If an agency wants to progress and be successful, a leader in carrying out each of his duties must try so that the steps taken can be carried out. Supervision is basically a strategy that focuses on process improvement with the quality of employee performance in their duties. If an agency wants to progress and be successful, a leader in carrying out each of his duties must try so that the steps taken can be carried out. Supervision is basically a strategy that focuses on process improvement with the quality of employee performance in their duties. If an agency wants to progress and be successful, a leader in carrying out each of his duties must try so that the steps taken can be carried out.

Workload (workload) is a difference between the capacity or ability of workers with the demands of work that must be faced. Given that human work is both mental and physical, each has a different level of loading. A loading level that is too high allows excessive energy use and overstress occurs, whereas a loading intensity that is too low allows boredom and boredom or understress.

It is necessary to pay attention to the suitability of the workload set by the company for the conditions of the workers. Excessive workload can lead to an uncomfortable working atmosphere for workers because it can lead to faster work stress. Conversely, a lack of workload can cause losses to the organization. Employee performance is work performance, namely the comparison between work results that can be seen in real terms with work standards that have been set by the organization. Quality performance will be realized if an organization can choose prospective employees who have the motivation that is appropriate to their work and have qualities that enable them to work optimally. Performance is basically what employees do or cannot do.

## LITERATURE REVIEW

### HR Development

According to (Krismiyati, 2017) Human resource development is a set of activities carried out systematically and planned which are consciously designed to provide facilities to employees within a company with the skills needed to meet job demands, both now and in the future. Meanwhile, according to (Tarigan & Nasution, 2014) Human Resource Development is a process of preparing individuals

to carry out higher responsibilities related to their duties and functions within the company which is carried out through increasing intellectual abilities to carry out better jobs.

### **HR Development Indicators**

According to (Krismiyati, 2017) indicators of HR development are as follows:

1. Motivation. An encouragement or encouragement to someone so that person can try to do what he wants to achieve well.
2. Personality. Personality includes habits, attitudes, traits that a person has that develops when a person relates to other people.
3. Skills Skills are skills to complete the task. or skills required.

### **Supervision**

According to Koontz (2009) Supervision is the measurement and improvement of the implementation of the work of subordinates, so that the plans that have been made to achieve company goals can be implemented. The opinion of other experts according to Handoko (2014) explains that "Supervision is a systematic effort to set implementation standards with planning objectives, design feedback information systems, compare real activities with predetermined standards, determine and measure deviations and take corrective actions needed to ensure that all company resources are used in an effective and efficient manner in achieving company goals.

### **Monitoring Indicator**

According to Handoko (2014) the indicators of supervision are as follows:

1. Determination of implementation standards or planning in supervision is setting implementation standards, the standard implies as a unit of measurement that can be used as a benchmark for the assessment of results - results.
2. Measurement of work Implementation of standard setting activities will be in vain if it is not accompanied by various ways to measure the implementation of real activities. There are several ways to take work measurements.
  - a. Observation.
  - b. Reports - reports on oral or written results.
  - c. Automatic methods
  - d. Testing or by sampling
3. Performance appraisal Performance appraisal certainly cannot be separated from employee motivation as a support for satisfaction in carrying out tasks so as to be able to create good performance so that it is profitable for the company.
4. Corrective action Return of corrective action needed if the implementation deviates from the standard carried out by the supervisor.

## Workload

Workload is the tasks assigned to the workforce or employees to be completed at a certain time by using the skills and potential of the workforce. Koesomowidjojo, (2017) Workload is a process in determining the number of working hours of human resources that are worked, used, and needed in completing a job for a certain period of time. According to Vanchapo (2020) workload is a process or activity that must be completed by a worker within a certain period of time.

## Workload Indicator

According to Koesomowidjojo (2017) indicators of workload include:

1. Working Conditions Working conditions in question are how well an employee understands the job. Therefore, the company should already have and provide SOP (Standard Operating Procedure) socialization to all elements within the company.
2. Use of Working Time Working time in accordance with the SOP can minimize the workload of employees.
3. Targets to be Achieved It takes a determination of time to complete a certain volume of work for each employee, the number of which is certainly different from one another.

## Employee Performance

According to Robbin (2016) defining performance is a result achieved by employees in their work according to certain criteria that apply to a job. . Meanwhile, according to Mangkunegara (2017) "Performance is the result of work in quality and quantity that has been achieved by employees in carrying out the tasks that have been given". According to Sedarmayanti (2018), performance is the result of a person's work, an overall management process, where the work must show measurable results.

## Employee Performance Indicators

According to Robbins (2016) performance indicators are tools for measuring the extent to which employee performance is achieved. Following are some indicators to measure employee performance:

1. Work quality: The quality of employee work can be measured from employee perceptions of the quality of work produced and the perfection of tasks on the skills and abilities of employees.
2. Quantity: Quantity is the amount produced expressed in terms of the number of units, the number of activity cycles completed.

3. Punctuality: Timeliness is the level of activity completed at the stated time, seen from the point of coordination with output results and maximizing the time available for other activities
4. effectiveness: Effectiveness here is the degree to which the use of organizational resources (labor, money, technology and raw materials) is maximized with the intention of increasing the results of each unit in the use of resources.
5. Independence: Independence is the level of someone who will be able to carry out their work functions without receiving assistance, guidance from or supervisors.

## METHOD

The type of research that will be used is quantitative associative, namely research that aims to determine the relationship between two or more variables (Sugiyono, 2013). In this study, the exogenous variables were human resource development (X1) and supervision (X2). Meanwhile, the endogenous variable is Performance (Y) and the Intervening Variable is Workload (Z). This research was conducted at the Office of Public Works and Housing, Jalan MT Haryono No. 8 Kel. Kec. Pepper Gardens North Binjai - Binjai. According to Sugiyono (2013) population is a generalized area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then the conclusion is drawn that the population used is 79 employees. The sample is part of the number and characteristics possessed by this population. .

The data analysis technique used in this study is a quantitative data analysis method. Data analysis in this study used Partial Least Square (PLS) based Structural Equation Modeling (SEM) using SmartPLS 3.3.3 software.

### *Measurement Model (Outer Model)*

The procedure for testing the measurement model consists of a validity test and a reliability test.

#### 1. Validity Test

The validity test is used to assess whether or not a questionnaire is valid. A questionnaire is said to be valid if the questionnaire questions are able to reveal something that is measured by the questionnaire. Validity testing is applied to all question items in each variable.

#### 2. Reliability Test

In general, reliability is defined as a series of tests to assess the reliability of statement items. The reliability test is used to measure the consistency of measuring instruments in measuring a concept or measuring the consistency of respondents in answering statement items in questionnaires or research instruments. To measure the level of reliability of research variables in PLS,



you can use the value of the alpha coefficient or Cronbach's alpha and composite reliability). Cronbach's alpha value is suggested to be greater than 0.7 and composite reliability is also suggested to be greater than 0.7. (Now, 2014)

### Structural Model (Inner Model)

This test was conducted to determine the relationship between exogenous and endogenous constructs which has become a hypothesis in this study (Hair et al., 2017). To produce inner model test values, steps in SmartPLS are carried out using the bootstrapping method. The structural model is evaluated using the R-square for the dependent variable, the Stone-Geisser Q-square test for predictive elevation and the t test and the significance of the structural path parameter coefficients with the following explanation:

#### 1. Coefficient of Determination / R Square (R<sup>2</sup>)

In assessing the model with PLS begins by looking at the R-square for each dependent latent variable. The interpretation is the same as the interpretation in regression. Changes in the R-square value can be used to assess the effect of certain independent latent variables on the dependent latent variable whether it has a substantive effect (Ghozali, 2012). The value of R<sup>2</sup> is generally between 0 and 1.

#### 2. Predictive Relevance (Q<sup>2</sup>)

This test is used to measure how well the observed values are generated by the model and also the parameter estimates. If the Q<sup>2</sup> value is greater than 0, it indicates that the model has predictive relevance, which means it has a good observation value, whereas if the value is less than 0, it indicates that the model does not have predictive relevance (Ghozali, 2014).

#### 3. t-Statistics

at this stage it is used for hypothesis testing, namely to determine the significance of the relationship between variables in research using the bootstrapping method. In the full Structural Equation Modeling model besides confirming the theory, it also explains whether or not there is a relationship between latent variables (Ghozali, 2012). The hypothesis is said to be accepted if the t statistic value is greater than the t table. According to (Latan and Ghozali, 2012) the criteria for a t table value of 1.96 with a significance level of 5%

#### 4. Path Coefficient (Path Coefficient)

This test is used to determine the direction of the relationship between variables (positive/negative). If the value is 0 to 1, then the direction of the relationship between variables is positive. Meanwhile, if the value is 0 to -1, then the direction of the relationship between variables is declared negative.

### 5. Model Fit

This test is used to determine the level of suitability (fit) of the research model with the ideal model for this study, by looking at the NFI value in the program. If the value is closer to 1, the better (good fit).

## RESULTS AND DISCUSSION

### Outer Model Analysis

Testing the measurement model (outer model) is used to determine the specification of the relationship between latent variables and their manifest variables. This test includes convergent validity, discriminant validity and reliability.

#### 1. Convergent Validity

Convergent validity is used to determine the validity of each indicator on its latent variables, in the SmartPLS software to see the results of the validity, it can be seen in the outer loading table. In the outer loading table, there are numbers or values that indicate indicators that show similarities with the construct variables. The value for the indicator is said to be valid, if the indicator explains the construct variable with a value of  $> 0.7$ . The structural model in this study is shown in the following figure:

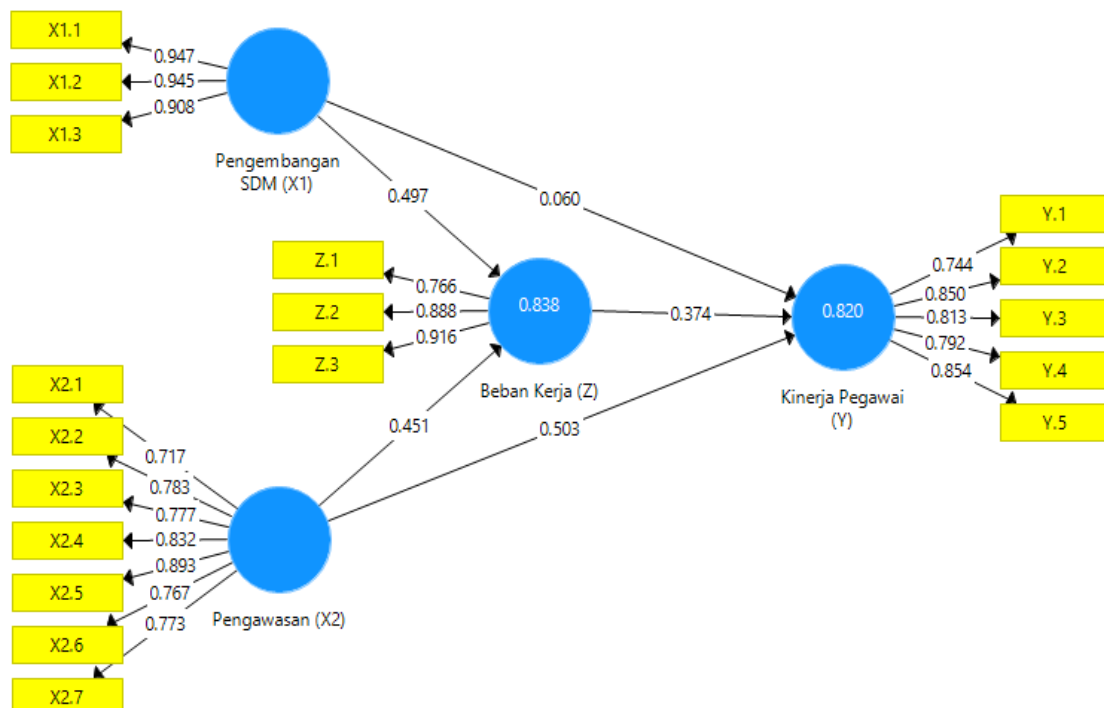


Figure 1. Outer Model  
 Source: Smart PLS 3.3.3

The Smart PLS output for the loading factor gives the results in the following table: Outer Loadings In this study there are equations, and the equation consists of two substructures for substructure 1

$$Z = b1X1 + b2X2 + e1$$

$$Z = 0.497 + 0.451 + e1$$

For substructure 2

$$Y = b3X1 + b4X2 + b5Z + e2$$

$$Y = 0.060 + 0.503 + 0.374 + e2$$

Table 1. Outer Loadings

	Workload (Z)	Employee Performance (Y)	Surveillance (X2)	HR Development (X1)
X1.1				0.947
X1.2				0.945
X1.3				0.908
X2.1			0.717	
X2.2			0.783	
X2.3			0.777	
X2.4			0.832	
X2.5			0.893	
X2.6			0.767	
X2.7			0.773	
Y. 1		0.744		
Y.2		0.850		
Y.3		0.813		
Y.4		0.792		
Y.5		0.854		
Z. 1	0.766			
Z. 2	0.888			
Z. 3	0.916			

Source: Smart PLS 3.3.3

It can be seen in the table above that the outer loading shows that the value of each outer loading indicator is greater than 0.7 so that it is determined that the indicators in each variable have a value greater than 0.7 so that each indicator is declared valid and can continue research at the next stage. furthermore.



## 2. Discriminant Validity

Discriminant Validity can be tested by looking at the cross-loading table, this output is used to test discriminant validity at the indicator level with the condition that the correlation between indicators and their late variables is  $>$  compared to the correlation between indicators and other latent variables (outside the block). For more details can be seen in the table below:

Table 2. Discriminant Validity

	Workload (Z)	Employee Performance (Y)	Surveillance (X2)	HR Development (X1)
X1.1	0.886	0.813	0.854	<b>0.947</b>
X1.2	0.858	0.783	0.796	0.945
X1.3	0.727	0.713	0.768	0.908
X2.1	0.687	0.697	0.717	0.720
X2.2	0.651	0.737	0.783	0.578
X2.3	0.674	0.607	0.777	0.619
X2.4	0.724	0.687	0.832	0.684
X2.5	0.738	0.754	<b>0.893</b>	0.716
X2.6	0.673	0.749	0.767	0.702
X2.7	0.736	0.667	0.773	0.771
Y. 1	0.610	0.744	0.630	0.604
Y.2	0.781	0.850	0.805	0.680
Y.3	0.673	0.813	0.721	0.636
Y.4	0.607	0.792	0.679	0.630
Y.5	0.832	<b>0.854</b>	0.741	0.792
Z. 1	0.766	0.529	0.632	0.674
Z. 2	0.888	0.853	0.794	0.775
Z. 3	<b>0.916</b>	0.817	0.826	0.828

Source: Smart PLS 3.3.3

Based on the table above, it shows that the value of the cross loading factor appears to be greater than the latent variable so that it can be explained that the Workload variable has a cross loading indicator that is larger than other latent indicator variables, for the Employee Performance variable the cross loading indicator is greater than other latent variable indicators, for cross the loading of the indicator monitoring variable is greater than the other latent indicator variables, for the cross loading of the HR Development variable the indicator is greater than the other latent indicator variables, meaning that all indicators show valid data with discriminatory validity.

### 3. Composite reliability

Subsequent tests determine the reliable value with the composite reliability of each construct, the construct value that is considered reliability is where the composite reliability value is above 0.6 or greater than 0.6. If the value of Cronbach's alpha is also greater than 0.7 then the value of each construct in the block is considered reliable in each construct variable and if the AVE value is also above 0.7 then each construct variable is considered valid. The following is a table of loading values for the research variable construct resulting from running the Smart PLS program in table 3 below:

**Table 3. Construct Reliability and Validity**

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Workload (Z)	0.822	0.894	0.738
Employee Performance (Y)	0.870	0.906	0.659
Surveillance (X2)	0.901	0.922	0.629
HR Development (X1)	0.926	0.953	0.871

Source: Smart PLS 3.3.3

Based on the results of the table above, it can be seen that the construct variable values in the Cronbach alpha column show that the results of each variable have a value above 0.7 so that all construct variables are considered reliable, and it can also be seen in the composite reliability column that there is a construct value above 0.6 so that it is stated each construct variable that is greater than 0.6 is considered reliability while in the AVE column there is a construct value for each variable above 0.7 or greater than 0.7 so it is concluded that each variable is considered valid with the resulting AVE value meaning that each column gets a higher value greater than the value determined and considered the reliability and validity of each variable construct.

#### Inner Model Analysis

Evaluation of the structural model (inner model) is carried out to ensure that the structural model built is robust and accurate. The stages of analysis carried out in the evaluation of the structural model are seen from several indicators, namely:

##### 1. Coefficient of Determination (R<sup>2</sup>)

Based on the data processing that has been done using the SmartPLS 3.0 program, the R Square value is obtained as follows:

**Table.4. R Square results**

	R Square	Adjusted R Square
Workload (Z)	0.838	0.834
Employee Performance (Y)	0.820	0.813

Source: Smart PLS 3.3.3

Based on the R square results above, the R square workload value has a result of 0.838 if the value is percentaged for workload of 83.8% so it can be concluded that HR Development and Oversight has an effect on Workload of 83.8% and the remaining 16.2 % is in the variable not examined, for the R square value of Employee Performance there is a result of 0.820 with the percentage of Employee Performance results at 82.0%, which means that the percentage value of the variable HR Development, Supervision and Workload influences Employee Performance by 82.0 % and the remaining 18.0% is in other variables that are not examined.

**2. Assessment of Goodness of Fit (GoF)**

The goodness of fit model test can be seen from the NFI value  $\geq 0.697$  which is declared fit. Based on the data processing that has been done using the SmartPLS 3.3 program, the Fit Model values are obtained as follows:

**Table 5. Model Fit**

	Saturated Model	Estimation Models
SRMR	0.185	0.185
d_ ULS	1.238	1.238
d_ G	2,727	2,727
Chi-Square	706,194	706,194
NFIs	0.898	0.898

Source: Smart PLS 3.3.3

The results of the goodness of fit test for the PLS model in the table above show that the NFI value is 0.898, meaning that this study is considered FIT because the NFI value is greater than 0.819. Thus, from these results it can be concluded that the model in this study has a high and feasible goodness of fit. used to test the research hypothesis.

**3. Hypothesis Testing**

After assessing the inner model, the next thing is to evaluate the relationship between latent constructs as hypothesized in this study. Hypothesis testing in this study was carried out by looking at the T-Statistics and P-Values. The hypothesis

is declared accepted if the T-Statistics value is > 1.96 and the P-Values are <0.05. The following are the results of the Path Coefficients of direct influence:

Table 6. Path Coefficients (Direct Effects)

	Original Sample (O)	T Statistics (  O/STDEV  )	P Values	Results
Workload (Z) -> Employee Performance (Y)	0.374	2,039	0.042	Accepted
Supervision (X2) -> Workload (Z)	0.451	4,119	0.000	Accepted
Supervision (X2) -> Employee Performance (Y)	0.503	4,578	0.000	Accepted
HR Development (X1) -> Workload (Z)	0.497	4,621	0.000	Accepted
HR Development (X1) -> Employee Performance (Y)	0.060	0.261	0.794	Rejected

Source: Smart PLS 3.3.3

Based on the research above, only 4 hypotheses were accepted and one was rejected with a direct effect and it was explained that the Workload Hypothesis had a positive and significant effect on Employee Performance with an original sample value of 0.374 and P values 0.042 <0.05, meaning that the workload received by the employee that it does exist and often happens when the job is finished then there is another job that is charged to the employee. The Supervision Hypothesis has a positive and significant effect on workload with an original sample value of 0.451 and a P value of 0.000 <0.05, which means that when an employee has been given a workload, periodic supervision will be carried out to speed up work. The Supervision Hypothesis has a positive and significant effect on Employee Performance with an original sample value of 0, 503 and P values 0.000 means that supervision is carried out faithfully, the employee's performance is good and correct, if not monitored, the performance is random. The hypothesis that HR development has a positive and significant effect on workload with an original sample value of 0.497 and a P value of 0.000 means that with the development of human resources or employees, the workload provided by the organization will also increase. Hypothesis HR development has no significant positive effect on employee performance, which means that HR development is not always successful in improving employee performance if HR development fails. 497 and P values of 0.000 means that with the development of human resources or employees, the workload provided by the organization will also increase. Hypothesis HR development has no significant positive effect on employee performance, which means that HR development is not always successful in improving employee performance if HR development fails. 497 and P values of 0.000 means that with the development of human resources or employees, the

workload provided by the organization will also increase. Hypothesis HR development has no significant positive effect on employee performance, which means that HR development is not always successful in improving employee performance if HR development fails.

**Table 7. Path Coefficients (Indirect Effects)**

	Original Sample (O)	T Statistics (  O/STDEV  )	P Values	Results
Supervision (X2) -> Workload (Z) -> Employee Performance (Y)	0.169	2,173	0.030	Accepted
HR Development (X1) -> Workload (Z) -> Employee Performance (Y)	0.186	1,558	0.120	Rejected

Source: Smart PLS 3.3.3

Based on the research, there is an indirect hypothesis that supervision has an effect on employee performance through workload in a significant and positive way, which means that workload is an intervening variable with an original sample value of 0.169 and P values of 0.030 < 0.05. HR development has an effect on employee performance through workload with an insignificant positive value of 0.186 and P values of 0.120 > 0.05 meaning that workload is not an intervening variable and cannot have a significant effect.

**CLOSING**

**Conclusion**

Based on the above research that was examined by researchers, it can be explained and conclusions will be drawn as follows:

1. Workload has a positive and significant effect on employee performance.
2. Supervision has a positive and significant effect on workload.
3. Supervision has a positive and significant effect on employee performance.
4. HR development has a positive and significant effect on workload.
5. HR development has a positive and insignificant effect on workload.
6. Supervision has a significant and positive effect on Employee Performance through Workload.
7. HR Development has an effect on Employee Performance through Workload with an insignificant positive value.

**Suggestion**

1. The organization must see employee development from time to time so that the organization can make the right decisions in retaining employees.

2. The organization must be fair in providing work according to its portion so that employees will not feel stress at work.
3. Supervision of employees must be more stringent but not intimidating employees so that employees work comfortably and safely.
4. Employee performance must be better than before.

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