

# INFLUENCE OF WORKLOAD AND DIGITAL COMPETENCY ON PERFORMANCE OF EMPLOYEES

(Study on State Civil Apparatus at the Department of Public Works  
and Spatial Planning of Batang Regency)

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**Abstract.** *For more than a year, the Covid-19 pandemic has hit, causing many changes and giving birth to new norms and practices in the social, political, and economic order, both at the individual, community, institutional, state governance, and relations between nations. One of those affected is the office sector, but agencies are required to optimize performance without neglecting the health protocols set by the government. This study aims to determine the effect of workload and digital competence on employee performance at the Batang Regency Public Works and Spatial Planning Office. The population in this study were all employees of the State Civil Apparatus totaling 133 people. The sampling method is using a census. The data collection technique used a questionnaire and the analytical method used was multiple linear regression. The results of the analysis show that the workload has no significant positive effect on employee performance. The workload is an obligation that must be completed by employees following the specified time so that the level of workload does not affect employee performance. Digital competence has a positive and significant effect on employee performance. This finding implies that employees within the Batang Regency Public Works and Spatial Planning Office can operate digital devices.*

**Keywords:** *Workload, Digital Competence, Performance*

## INTRODUCTION

The Covid-19 pandemic that hit Indonesia in 2020 caused many changes and gave birth to new norms and practices in social, political, and economic arrangements and government activities, especially in public services (Saifuddin, 2021). agencies are required to optimize performance without neglecting the health protocols set by the government.

The government policy taken is to determine the division of labor with a system of 50% of employees carrying out *Work From the Office (WFO)* and 50% of other employees doing *Work From Home (WFH)* or working from home *virtually*. (Regent Circular dated March 5, 2021). All Regional Apparatus Organizations (OPD) in Indonesia enforce this policy, including the Batang Regency Public Works and Spatial Planning Agency (DPU-PR), which is the implementing element of government affairs in the fields of Road Infrastructure, Bridges, Water Resources, Spatial Planning and Environmental Building Planning. in Batang Regency, Central Java Province.

The policy of implementing *work-from-home (WFH)* at the Batang Regency Public Works and Spatial Planning Office causes employees to experience changes in work habits, resulting in gaps in workloads. This can be seen from the employee attendance schedule made by each field, some employees work *from the office* because their work is related to programs in each field and project that must run every day, but there are employees who are scheduled to only leave twice a week. because the workload is small and can be taken home.

Excessive workload can have a bad impact on employees, which will cause physical and mental fatigue. Too little workload will cause boredom and result in a lack of attention to work, thereby potentially reducing employee creativity in completing their work and will affect performance. Employee performance will be maximized if the workload indicators are met in a balanced manner according to the targets to be achieved, working conditions and work standards. (Nabawi, 2020). This is in line with the results of research (Rolos J, Sambul S, Rumawas, 2018) that workload has a negative and significant effect on performance, but it is different from Ludfiana, Santoso, Putri., 2021) which states that workload has a positive effect on performance. employee.

Field workers at the Batang Regency Public Works and Spatial Planning Office were able to quickly adjust to this new policy, as many jobs came directly to the field without having to go to the office. Unlike the administrative staff who have to undergo a lot of adjustment because they are required to complete their work from home. When carrying out *work from home*, employees remain on *standby* if their superiors give directions or orders, for that employees at the Batang Regency Public Works and Spatial Planning Office must be proficient in using *online*.

The role of technology in this pandemic era is very vital because it can facilitate the coordination and delivery of information between employees without having to meet face to face. This will run smoothly if the employee concerned has sufficient digital competence to use existing technology, but if the digital competence is lacking or even non-existent, it will cause new problems within the agency or organization. (Munstashir & Tricahyono, 2021)

Marguna & Sangiasseri, (2020), Andi Milu Marguna<sup>1</sup>, Sangiasseri<sup>2</sup>, (2020) state that there is a positive and significant influence between digital competence variables on performance variables. However, it is different from research (Baharrudin, Ludfiana, Santoso, Putra, Pratiwi, et al., 2021) that digital competence has no significant effect on employee performance because in the age range between 40-58 years most of their duties have been assisted by younger employees. and have digital competence.

Human resources who have the right competencies according to their work will be able to improve their performance, and by having values, HR will always be ready to face changes by the demands of the agency. (Baharrudin S, Ludfiana M, Santoso B, Putra E, Pratiwi R., 2021).

State Civil Apparatuses within the Batang Regency government are expected to be able to use *smartphones* and computer devices *online*, because starting October 1, 2021, e-Kinerja and e-Presence will be re-enacted. The decision is contained in the Regent's Regulation (Perbub) No. 21 of 2021, concerning Additional Income for Civil Servants in the Batang Regency Government. (BKD Batang Regency, 2021). However, staffing data from the Public Works and Spatial Planning Office of Batang Regency shows that from April 2021 to August 2021, during the trial period for filling out e-performance from 133 employees,

there has not been a single employee who routinely fills in e-performance, and said he felt it was complicated. and do not know how to fill in the e-performance form.

Quoted from an article published on the BKN website (bkn.go.id), the establishment of an employee performance measurement system begins with Government Regulation Number 46 of 2011, concerning the Performance Assessment of Civil Servants which requires a change in the performance appraisal pattern from the Job Appraisal List ( DP3) shifts to performance-based assessment. The shift in pattern was carried out based on the mandate of Law Number 5 of 2014, concerning the State Civil Apparatus which was continued with the establishment of PPP 46/2011 and followed up technically through Regulation of the Head of BKN Number 1 of 2013. So that in 2016 BKN conducted a trial of the Daily Evaluation System ( DES) which is now known as e-Kinerja.

The e-Kinerja application is a Work Performance Information System that is used for each employee for the preparation of Employee Work Targets (SKP). This application can be accessed via <http://kinerja.pu.go.id>. The advantage of this application is that superiors will get notifications if their subordinates have not filled out, on the contrary, if their superiors have not filled out they will receive notifications via email. The benefit of the relationship between superiors and subordinates is that superiors can monitor the performance of their subordinates and can monitor if there are excess targets or not achieving targets. In addition, it can also help agencies to carry out coaching as well as monitor the performance of employees in their agency periodically. (Martina, 2020). This shows that digital competence is one of the factors that affect employee performance.

Filling out e-kinerja for the period from October 1 to October 31 is still experiencing many obstacles from employees and from the e-kinerja server which is difficult to access due to a large number of employees in Batang Regency. Most of the employees of the Batang Regency Public Works and Spatial Planning have difficulties in filling out the e-performance form, especially employees over 50 years of age who are not accustomed to using computers or *smartphones*.

The following is data on the age range of employees at the Batang Regency Public Works and Spatial Planning Office.

**Table 1.** Vulnerable Table of Employee Age

No	Age	Number of Employees
1	< 50 Years	60 Employees
2	>50 Years	73Employees
	Total	133 Employees

Source: DUK December 2021

Based on the table above, it can be explained that of 133 employees 60 employees are less than 50 years old, and as many as 73 employees are over 50 years old. Employees who are less than 50 years old do not experience difficulties in the process of filling out the e-kinerja form, but employees over 50 years of age, have difficulty in the process of filling out the *e-kinerja form*.

Based on the description above, the problems can be formulated, namely: 1. How does workload affect employee performance? 2. How does digital competence affect employee performance?

Permendagri No. 12/2008 states that workload is the amount of work that must be carried out by a position/organizational unit and is the product of the work volume and the time norm. The workload charged to employees can be categorized into three conditions, namely a workload that meets the standards, a workload that is too high (*over capacity*), and a low workload (*under capacity*). Workloads that are too high have an impact on employees having to expend more energy than usual, so employee performance will decrease if the employee's workload continues to increase without an appropriate division of workload. Furthermore (Rolos et al., 2018) in his research stated that the workload had a negative and significant effect on employee performance, namely the decreasing workload of an employee, the greater the performance of the employee. Based on the description above, the research hypothesis can be formulated as follows: H1: Workload affects performance.

Digital Competence is a person's ability to use the internet and the operational skills one needs when using digital tools for tasks, solving problems, conveying and managing information, collaborating, creating and sharing content, and developing knowledge more effectively, thinking practically, creatively, and innovatively. (Andipa, 2016)

A person's ability to use technology is very beneficial for the agency and the human resources in it. In the pandemic era, especially in the *new normal*, state civil servants are required to have a new work model, which is obliged to familiarize themselves with and master the development of information-based technology. (Baharrudin, Ludfiana, Santoso, Putra, & Pratiwi, 2021) Human resources who have the right competencies according to their work will be able to improve their performance, and by having values, HR will always be ready to face changes by the demands of the agency.

The relationship between digital competence and employee performance is shown by research (Andipa, 2016) with the results of the study found that *Knowledge Sharing* and *Digital Competence* partially have a positive and significant effect, also simultaneously have a very strong effect on the performance of PD Adisari Group employees.

Based on the description above, the research hypothesis can be formulated as follows:

H2: Digital Competence affects Employee Performance

## RESEARCH METHODS

The population of this study was all ASN employees of the Department of Public Works and Spatial Planning in Batang Regency totaling 109 people. The sampling method is using a census, which is a sampling technique which all members of the population are used as samples. Measurement of variables using a 5 point Likert scale (1 = strongly disagree to 5 = strongly agree) for all variables:

The workload variable is measured by 5 indicators, namely the amount of work that is a lot, working time is too narrow, work pressure, responsibility for work, and whether or not the employee can carry out the work. Digital competence is measured by 6 indicators which include the ability to operate the device, the ability to fill out e-Kinerja, the ability to recognize icons on the device, the ability to complete work with the device, the ability to

participate in networks and online communication, the ability to convey information to other parties through technology. Performance is measured by 6 performance indicators, among others, being responsible for work, providing good service, obeying established rules, working according to predetermined quality, being able to cooperate with other colleagues, and working according to ethics.

The first step before data is collected is to test the validity and reliability of the data, to determine whether the research instrument is valid and reliable. The second test of the multiple linear regression hypothesis.

## **RESULTS AND DISCUSSION**

The identities of 109 respondents based on age, education level, and occupation can be explained as follows: most of the respondents are over 50 years old, with an average education level of SMA/equivalent to a Bachelor's degree, with administrative work. This shows that most of the employees are nearing retirement or retirement and the respondents are non-permanent employees who have been appointed as State Civil Apparatus, and most of them work in the field of administration. As an employee who works in the field of office administration, of course, you are required to be able to operate the software with the latest technology. The results of the validity and reliability tests for each statement item on the workload, digital competence, and employee performance variables can be presented in table 2 as follows:

**Table 2.** Validity and Reliability Test Results

Variable	Validity	Cronbach's Alpha
Workload (X1)		0,791
X1.1 Too much work.	0,629	
X1.2 Leaders often give sudden work and must be completed immediately.	0,469	
X1.3 I was under a lot of pressure from the leadership.	0,626	
X1.4 The facilities provided by the office are complete in supporting my work	0,500	
X1.5 I feel that I have not been able to complete the work optimally	0,564	
Digital Competence (X2)		0,870
X2.1 Able to operate computer/laptop	0,849	
X2.2 Able to fill e-Kinerja well..	0,403	
X2.3 Knowing the icon (command) on (Computer/laptop)	0,831	
X2.4 Able to complete work with Computer/Laptop	0,746	
X2.5 Able to use video conferencing applications (Zoom, Google Meet)	0,684	
X2.6 Able to convey information to others through messaging applications (Whatsapp, Telegram, etc.)	0,529	
Employee performance (Y)		0,888
Y1 Responsible for my duties.	0,641	
Y2 Providing the best service to the community	0,780	
Y3 Obey the rules set in the office.	0,859	
Y4. Work according to the specified quality.	0,567	
Y5 Able to work with co-workers.	0,825	
Y6 Work according to the code of ethics	0,658	

Source: primary data processed in 2022.

The significance test was carried out by comparing the *r* count with the *r* table, with a sample of 30 respondents first, so that the *degree of freedom* or *df*  $n-2$  is  $df = 30-2 = 28$ , Alpha 0.05, and *r* table = 0.306, each statement on the variables of workload, digital competence, and employee performance is declared valid. The results of the reliability test of all questionnaires from the three variables were declared reliable because *Cronbach's Alpha* was greater than 0.7. The normality test with *Kolmogorov Smirnov* showed *Asymp*



*Sig* 0.106 greater than 0.05. These results indicate that the data distribution in the model has been normally distributed so that the resulting regression model has met the normality assumption. The *multicollinearity* shows that the workload and *digital* have a *tolerance* greater than 0.10 and a VIF value less than 10. These results indicate that there is no *multicollinearity* in the regression model. The *Glejser* shows that the workload variable has a significance value of 0.186, which is greater than 0.05, and the significance value of the digital competence variable is 0.01, which is smaller than 0.05, meaning that the regression model still has heteroscedasticity. The *heteroscedasticity* dependent variable *absolute residual*, obtained the result that the significance value of the workload variable was 0.199, greater than 0.05, while digital competence had a significance value of 0.001 less than 0.05. This means that heteroscedasticity still occurs, then proceed with the third heteroscedasticity test and the results are the significance value of the workload variable 0.902 and digital competence a significance value of 0.107. Both have a significant value greater than 0.05, which means that the regression model does not occur *heteroscedasticity*.

Multiple linear regression analysis was used to determine the effect of workload (X1) and digital competence (X2) on employee performance (Y). Data processing using SPSS 20.0 program. The results of multiple linear regression analysis can be seen in table 3 as follows:

**Table 3.** Multiple Linear Regression Test Results

Variable	Beta Coefficient	Standard error	t value	Sig	Conclusion
Workload (X1)	0,028	0,097	0,289	0,773	Not significant
Digital Competence (X2)	0,116	0,048	2,413	0,018	Significant
R	0,363				
R <sup>2</sup>	0,131				
F Value	3,187				
Sig F	0,045				

Source: Processed primary data, 2022

The results of the calculations in table 3 above, the multiple linear regression equation models are obtained as follows:  $Y = 0.028 X_1 + 0.116 X_2 + e$  ( $X_1$ = workload,  $X_2$ = digital competence). The value of the workload regression coefficient is positive and not significant, meaning that more or less workload does not affect employee performance.

The value of the digital competence regression coefficient is positive and significant, meaning that the better the digital competence of the employee, the better the employee's performance. The value of the coefficient of determination or  $R^2$  is used to measure how far the model's ability to explain variations in employee performance is. The coefficient of determination generated in the regression model in this study is 0.131. This value indicates that the workload and digital competence variables can explain employee performance by 13.1%, while 86.9% is explained by other variables not examined. The F test resulted in a calculated F of 3.187 with a significance value of  $0.045 < 0.05$  ( $\alpha = 5\%$ ). These results can be concluded that the workload and digital competence simultaneously affect employee performance so the proposed model is accepted.

Based on the results of testing the first hypothesis (t-test), the results of the workload variable have a positive and insignificant effect on employee performance. This can be seen from the significance value of 0.773, which is greater than *the level of significance* ( $\alpha$ ) 0.05, so it can be concluded that the first hypothesis which states that workload affects employee performance is rejected. This means that the employee's workload has little or no effect on employee performance. The workload has become an obligation that must be done by employees by the specified time. The average employee has worked for more than ten years, so this task is a job that is often done and is by the main tasks and functions. Based on the indicator that the completion time is too fast, employees do not feel burdened if there are additional tasks from the leadership with a short completion time. The results of this study are in line with research (Pramita, 2019), which states that workload has a positive and insignificant effect, but is not in line with research (Rolos et al., 2018), which states that workload has a negative and significant effect on employee performance, meaning that if the workload increases it will reduce the potential for employee performance and vice versa if the workload decreases, the employee's performance will get better. Mustakim et al., (2021), (Nabawi, 2019), stated that the workload has a positive and significant effect on employee

performance, meaning that the more work assigned to employees, the employee performance will increase, if the workload decreases, employee performance also decreases. This shows that employees can carry out their activities well, namely working according to priorities and being able to adjust work conditions and heavy or light workloads.

Based on the second hypothesis test (t-test), the results of the digital competence variable have a positive and significant effect on employee performance. This can be seen from the significance value of 0.018 which is smaller than *the level of significance* ( ) of 0.05. So the second hypothesis which states that digital competence affects employee performance is accepted. This means that the more the digital competence of an employee increases, the more performance will be better and able to adapt to the development of digital technology. This is reinforced by the respondent's response to the statement of being able to fill out e-Kinerja and being able to convey information to other parties through the application of exchanging messages, most of the respondents said they were able to. On the indicator of being able to operate the device, recognizing the icon on the device, completing work with the device, and communicating with the network, many employees need to be trained more intensively, because of the 109 respondents there are around 50 employees at the Batang Regency Public Works and Spatial Planning Office, not yet able to use the device. . This could be since many employees are approaching retirement age, so it is necessary to prepare new employees who are more productive and able to adapt to the development of increasingly digital technology. The results of this study are in line with research conducted (Andipa, 2016), and (Marguna & Sangiasseri, 2020) that digital competence positive and significant effect on employee performance.

## CONCLUSION

The severity of the work given to employees does not affect performance, because work has become an obligation for employees, and employees do not feel burdened if there are additional tasks that must be completed by the specified time. The average employee has worked for more than ten years, so they can carry out their duties according to priorities. In terms of competence, the average employee can fill out *e-performance* and convey information through messaging applications, but intensive training is needed because there are still many employees who are not yet able to operate devices, recognize icons on devices, complete work with devices, and communicate with networks. This is because employees are approaching retirement age, so there is a need for rejuvenation or recruiting new employees who are more productive and competent in digital technology.

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