



## The interplay of workload, stress, and competence: enhancing performance through work culture

Nanang Setiawan \*, Ginta Ginting, Meirani Harsasi

Universitas Terbuka, Tangerang, Indonesia

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### Abstract

This study aims to analyze the effect of workload, competence, and work stress on employee performance at the Directorate of Academic Administration and Graduation (DAAK) of Universitas Terbuka, as well as to examine the role of work culture as a moderating variable. This research uses a descriptive and correlational quantitative approach with a saturated sample of 75 employees. Data analysis was conducted using Partial Least Square - Structural Equation Modeling (PLS-SEM) with SmartPLS software. The results show that competence has a positive and significant effect on improving employee performance, while workload and work stress do not have a direct significant effect on performance. Furthermore, work culture is empirically proven to moderate the impact of workload and work stress on employee performance, but does not moderate the relationship between competence and performance. Based on these findings, management is highly recommended to continuously invest in employee technical competence development programs and maintain a positive work culture climate to mitigate the effects of operational stress. For future studies, it is recommended to expand the research object to other units and explore additional variables such as leadership or job satisfaction.

## Introduction

The success of an organization in achieving its goals is highly dependent on the ability to manage human resources (HR) as the main asset (Valencia & Rinamurti, 2024). Strategic human resource management not only plays a role in increasing productivity, but also in building organizational competitiveness in the midst of ever-evolving global dynamics (Triatmaja et al., 2022). Employee performance, which is the result of individual work both in quality and quantity in accordance with their responsibilities, is a key indicator in determining the effectiveness and efficiency of the organization, especially in public sector institutions that have high service complexity (Hidayat, 2021). Performance itself can be interpreted as the result of work that has been successfully achieved by employees based on the goals, visions, and requirements of their work (Zahro & Abadiyah, 2024). Conceptually, performance is the result of an interaction between abilities, motivations, and opportunities that are used effectively and efficiently (Permatasari et al., 2019).

In the context of distance higher education, the Open University (UT) as a Legal Entity State University (PTNBH) faces a big challenge in providing accountable academic services to a very large number of students. The Directorate of Academic Administration and Graduation (DAAK) is a strategic unit that plays a role in ensuring the smooth administrative process until student graduation. However, performance achievements show that there are fluctuations in inequality (gap), especially in the indicator of graduation eligibility. In 2024, there will be a gap of 2,338 prospective graduates, which is the highest number in the last four years. This condition indicates that employee performance has not been fully optimal in meeting the set administrative standards.

This phenomenon is inseparable from the imbalance between workload and the availability of human resources. In 2024, the number of Open University students will increase significantly to reach 676,167 people, while the number of employees at the Directorate of Academic Administration and Graduation is only 75 people, so each average employee must serve around 1,301 students. This high administrative workload has implications for increased work pressure, especially during peak time periods such as registration and judiciary. This condition has the potential to cause various operational problems,

\*Corresponding author

Email address: Nanang Setiawan ([nanang.setia@gmail.com](mailto:nanang.setia@gmail.com))

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such as delays in the issuance of diplomas due to the accumulation of administrative processes, as well as increased work intensity that can trigger work stress (Nengah Weni et al., 2023). The demands of workload (both physical and mental) in the workplace have been proven to contribute to the onset of panic and increased work stress in employees (Rama et al., 2025).

Theoretically, workload is defined as the overall task that must be completed by an individual within a certain period of time, which includes not only the demands of the job, but also the accompanying physical and mental stress (Elma & Palahudin, 2025). A disproportionate workload can lead to burnout and have an impact on decreased performance. On the other hand, competence is a basic characteristic of an individual that includes knowledge, skills, motives, traits, and self-concepts that are directly related to superior performance (Boyatzis et al., 2024). Adequate competencies allow employees to manage work effectively and produce optimal output (Yuli et al., 2023). Meanwhile, work stress is a condition of tension that affects an individual's physical and psychological balance due to excessive work demands (Nengah Weni et al., 2023). To a certain extent, work stress can reduce productivity, although under certain conditions it can also be a trigger for performance improvement if managed properly. As revealed in the research cited by Rama et al. (Rama et al., 2025) moderate stress has been shown to improve performance, but excessive stress will lead to cognitive overload that triggers a decrease in employee work efficiency (Rama et al., 2025).

In addition to these factors, organizational culture has an important role in shaping employee work behavior. Work culture is a system of values, norms, and beliefs that serve as a guideline for acting and interacting in an organization. The role of cultural existence is also quantitatively very essential in its impact on workforce engagement and overall institutional performance (Owens et al., 2017). The Open University applies the values of KIIARA work culture (Quality, Integrity, Innovation, Accessibility, Relevance, and Accountability) as the foundation in carrying out organizational activities. A strong work culture is believed to be able to create a conducive work environment, increase collaboration, and maintain the stability of employee performance in the midst of high workload pressure (Kartika, 2023). In this research model, work culture is positioned as a moderation variable that has the potential to strengthen the influence of competence and mitigate the negative impact of workload and work stress on performance (Harahap & Nasution, 2023). Relevant to this, other literature also confirms that solid social interactions, such as interpersonal communication between employees, significantly serve as strong moderation variables that help bridge the influence of work stress and maintain employee performance (Dewi et al., 2020).

Operationally, employee performance in this study was measured through indicators of work quality, work quantity, punctuality, effectiveness of resource use, independence, and work commitment. Workload is measured based on targets that must be achieved, working conditions, and standard task completion time. Employee competence is measured through the dimensions of motives, traits, self-concept, knowledge, and skills (Yuli et al., 2023). Work stress is measured through indicators of task ambiguity, work conflict, time constraints, work environment conditions, and work pressure (Nengah Weni et al., 2023). Meanwhile, work culture is measured through indicators of innovation, attention to detail, results orientation, team orientation, and stability.

However, the results of previous research showed that there was an inconsistency (research gap) related to the influence of workload, competence, and work stress on employee performance. Several studies have found that workload and work stress have a significant effect on performance (Harahap & Nasution, 2023; Nuraisyah & Fitria, 2024; Roza & Putri, 2024). This finding is also validated by a study by Zahro & Abadiyah (Zahro et al., 2024) which confirms that work stress and workload directly have a significant influence on employee performance. Meanwhile, other studies show insignificant results (Firmansyah & Nugrohoseno, 2022; Sitompul & Simamora, 2021). This insignificant gap was also found by Dewi et al. (Dewi et al., 2020) which proves that work stress variables do not have a significant direct negative effect on employee performance achievements. On the competency variable, most studies show a positive and significant influence on performance, although there are findings that show that competence does not always have an optimal impact without the support of other factors (Hasyim & Rokhmatin, 2021). This main influence is also empirically proven by Dewi et al. (Dewi et al., 2020) which states that employee competence has been proven to contribute strongly in predicting performance.

In addition to the inconsistencies of the findings, there are also contextual gaps because most of the research was conducted in the industrial, manufacturing, and banking sectors, while studies on large-scale distance higher education institutions are still relatively limited. Although there have been previous studies that have examined stress in the academic environment such as the study from Keshavarz & Mohammadi (Keshavarz & Mohammadi, 2011) which proved that occupational stress in university staff has a sharp impact on organizational commitment and performance, the specific study of the role of

cultural moderation in large-scale universities has not been touched much on. Therefore, this study presents a novelty by integrating the variables of workload, competence, and work stress in one research model, as well as testing work culture as a moderation variable in the context of the Open University.

## Hypothesis Development

### **H1: Workload affects employee performance at the Directorate of Academic Administration and Graduation (DAAK) of the Open University**

The Effect of Workload on Employee Performance Workload that is not managed proportionately can cause physical and mental fatigue which has an impact on decreased performance (Elma & Palahudin, 2025). On the other hand, although workload has the potential to trigger stress, empirical studies from Firmansyah & Nugrohoseno (Firmansyah & Nugrohoseno, 2022) and Sitompul & Simamora (Sitompul & Simamora, 2021) prove that there is a variation in findings regarding the significance of their impact on operational performance. Based on this, the first hypothesis was formulated.

### **H2: Competence affects the performance of employees at DAAK Open University**

The Effect of Competence on Employee Performance Competencies that include individual knowledge, skills, motives, and traits have been empirically proven to be directly related to superior performance achievements (Boyatzis et al., 2024). Adequate competence is a very strong predictor and allows employees to produce maximum output achievements (Dewi et al., 2020; Yuli et al., 2023).

### **H3: Work stress has a significant negative effect on employee performance at DAAK Open University**

The Effect of Work Stress on Employee Performance Excessive work demands result in tension that affects psychological and physical balance, leading to cognitive overload and decreased work efficiency (Nengah Weni et al., 2023; Rama et al., 2025). This is empirically strengthened by the findings of Zahro & Abadiyah (Zahro et al., 2024) which states that work stress has a significant direct effect on employee performance.

### **H4: Work culture moderates the negative influence of workload on employee performance at DAAK Open University**

Work Culture Moderates Workload to Performance A strong organizational work culture, like the KIIARA values applied at UT, is able to create a conducive work environment that maintains performance stability in the midst of high workload pressure (Kartika, 2023). This work culture is believed to function as a moderation mechanism that has the potential to mitigate the negative impact of extreme administrative workloads (Harahap & Nasution, 2023).

### **H5: Work culture moderates the positive influence of competence on employee performance at DAAK Open University**

Work Culture Moderates Competency to Performance An established organizational culture can facilitate innovation and results-orientation, which directly has the potential to direct and strengthen the implementation of employee competencies to achieve more optimal performance in their work environment (Harahap & Nasution, 2023).

### **H6: Work culture moderates the negative influence of work stress on employee performance at DAAK Open University**

Work Culture Moderates Work Stress on Performance The existence of a solid work culture and social interaction significantly serves as a strong moderation variable that helps bridge the negative influence of work stress, as well as maintain the overall level of staff engagement in dealing with stress (Dewi et al., 2020; Harahap & Nasution, 2023; Owens et al., 2017). The sixth hypothesis is determined: Based on this description, this study aims to analyze the influence of workload, competence, and work stress on employee performance at the Directorate of Academic Administration and Graduation (DAAK) of the Open University, as well as examine the role of work culture in moderating the relationship between these variables.

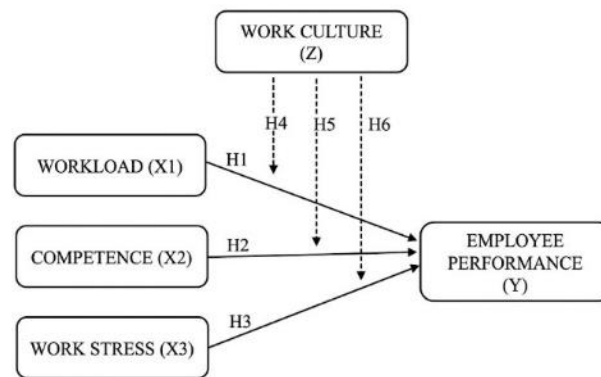


Figure 1. Frame of Mind

## Research Methods

This study involved five main variables, namely employee performance as a dependent variable (Y), workload (X1), competence (X2), and work stress (X3) as independent variables, and organizational work culture as a moderation variable (Z). Employee performance is measured through indicators of work quality, work quantity, punctuality, effectiveness of resource use, independence, and work commitment (Dewi et al., 2020). The workload is measured based on the targets that must be achieved, the working conditions, and the working time standards. Employee competence is measured through the dimensions of motives, traits, self-concept, knowledge, and skills. Work stress is measured through indicators of task unclarity, work conflict, time constraints, work environment conditions, deadline pressure, and the availability of support in completing work. Meanwhile, organizational work culture is measured through indicators of innovation, attention to detail, results orientation, team orientation, and organizational stability.

This research was carried out at the Directorate of Academic Administration and Graduation (DAAK) of the Open University as a work unit that has a strategic role in the management of academic administration and the student graduation process. The focus of observation on the phenomenon and organizational performance achievements is based on data for the period 2024–2025, which is then comprehensively analyzed in the implementation of the research in 2026.

This study uses a quantitative approach with a descriptive research type and a correlational approach, which aims to analyze the relationship and influence between variables that are objectively studied through numbers (Rama et al., 2025). The population in this study is all employees who serve at DAAK Open University which is 75 people. Given the relatively small population, the sampling technique used is saturated sampling (census), so that all members of the population are used as research respondents (Zahro et al., 2024).

Data collection was carried out through three main techniques, namely questionnaires, observations, and literature studies. The questionnaire was used as the main research instrument which was compiled in the form of a structured statement using a five-point Likert scale, ranging from strongly disagree to strongly agree (Rama et al., 2025). The distribution of questionnaires was carried out in person and digitally. In addition, observations are carried out to obtain a real picture of the conditions of the work environment and employee interactions, while literature studies are used to strengthen theoretical foundations through various sources such as scientific journals, books, and relevant research reports.

The data quality test in this study was carried out through the evaluation of the measurement model (outer model), which included validity and reliability tests. The validity of the convergence is assessed based on the outer loading value which must be greater than 0.70 and the Average Variance Extracted (AVE) value which must exceed 0.50. Discriminant validity was tested using a Heterotrait-Monotrait ratio (HTMT) with a maximum limit of 0.90. Meanwhile, the reliability of the instrument was measured using Cronbach's Alpha and Composite Reliability values with criteria greater than 0.70 (Zahro et al., 2024).

Furthermore, the model feasibility test (goodness of fit) was carried out by considering several indicators, including the Standardized Root Mean Square Residual (SRMR) with a value of  $\leq 0.08$  as a good model criterion, and supported by  $d\_ULS$ ,  $d\_G$ , Chi-Square, and Normed Fit Index (NFI) values to see the overall suitability of the model.

The data analysis in this study uses the Partial Least Square – Structural Equation Modeling (PLS-SEM) approach with the help of SmartPLS software. The selection of SmartPLS is particularly appropriate given its advantages in handling small sample sizes as well as its strength in testing the effects

of complex moderation or mediation. The evaluation of the structural model (inner model) was carried out by analyzing the value of the determination coefficient (R-Square) to see the ability of independent variables to explain the dependent variables, the effect size value (f-Square) to measure the contribution of each variable, and the predictive relevance value (Q-Square) to test the model's predictive ability.

Hypothesis testing was carried out using the bootstrapping technique by looking at the path coefficient as the path coefficient between variables. The level of significance was determined based on T-Statistics ( $> 1.96$ ) and P-Values ( $< 0.05$ ). To test the role of moderation variables, an interaction approach (moderating effect) was used to determine whether the organization's work culture was able to strengthen or weaken the relationship between independent variables (workload, competence, and work stress) and dependent variables (employee performance).

The data analysis process begins with descriptive statistics to see the tendency of respondents' answers through the mean value. Furthermore, the data was analyzed using SmartPLS through two main stages, namely the evaluation of the outer model and the inner model. The interpretation of the results is carried out in stages, starting from ensuring that the research instrument has met the criteria of validity and reliability, then evaluating the strength of the model through the R-Square value, and ending with hypothesis testing based on the P-Value value. The hypothesis is stated to be accepted when the P-Value is  $< 0.05$ , and rejected when the P-Value is  $> 0.05$  (Zahro et al., 2024).

## Results and Discussion

This study involved 75 employees at the Directorate of Academic Administration and Graduation (DAAK) of the Open University as respondents using a saturated sample technique. The profile of respondent characteristics is presented in Table 1 below.

Table 1. Respondent Characteristics

Category	Classification	Number	Percentage
Gender	Male	40	53%
	Female	35	47%
Age	21–30 Years	30	40%
	31–40 Years	34	46%
	> 40 Years	11	14%
Education	High School & Diploma III	18	24%
	Bachelor's Degree	53	71%
	Master's Degree	4	5%
Employee Status	Civil Servant	10	13%
	Non-Civil Servant Recruitment	20	27%
	Regular/Technical Recruitment	45	60%

Based on Table 1, the characteristics of the respondents in this study show a fairly diverse distribution. In terms of gender, respondents were dominated by 40 men (53%), while women amounted to 35 people (47%). This shows that the gender composition is relatively balanced, although there is a slight dominance of male respondents. Judging from the age aspect, the majority of respondents are in the productive age range. The 31–40 year old age group was the most dominant with 34 people (46%), followed by 30 people (40%) aged 21–30 years, and 11 respondents over 40 years old (14%). This distribution indicates that most employees are in the mature and productive phase of working age, so they have the potential to have good work experience and emotional stability in supporting organizational performance. From the education level, most of the respondents have an S-1 educational background as many as 53 people (71%), followed by high school and D-III as many as 18 people (24%), and S-2 as many as 4 people (5%). This shows that the quality of human resources in the work units studied is relatively good, with the dominance of the workforce that has higher education. Meanwhile, based on personnel status, the majority of respondents were Regular/Technical PUTPK as many as 45 people (60%), followed by Non-Civil Servant PUTs as many as 20 people (27%), and civil servants as many as 10 people (13%). This composition shows that most of the employees are in the category of contract or technical personnel, which can affect work dynamics, organizational flexibility, and human resource management patterns within the Directorate of Academic Administration and Graduation. Overall, the characteristics of respondents in this study reflect the dominance of the productive age workforce with a relatively high level of education and the employment status dominated by technical personnel. This

condition is an important factor that can affect employee perception, attitude, and performance in supporting the achievement of organizational goals.

**Evaluation of Measurement Models (Outer Model)**

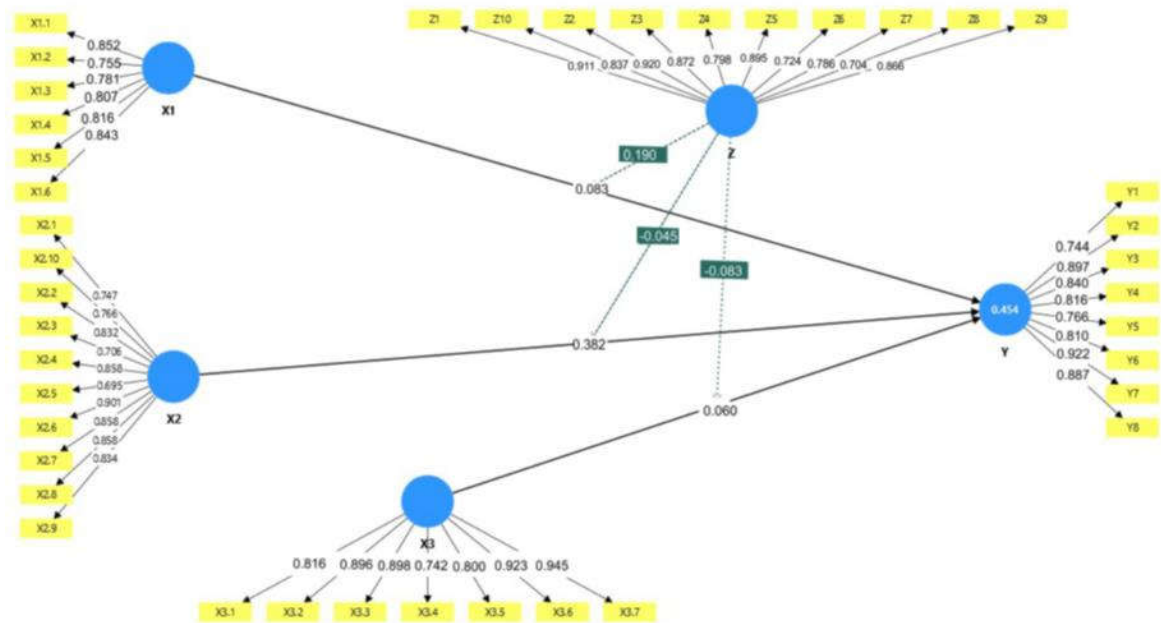


Figure 2. Outer Model

Evaluation of the measurement model is carried out to ensure that the research instrument meets the criteria of validity and reliability.

**Convergent Validity**

All indicators on the variables of workload, competence, work stress, employee performance, and work culture were declared to be valid in convergence. Convergent validity was evaluated based on the outer loading (> 0.70) and Average Variance Extracted (AVE) (> 0.50) values. The test results showed that all indicators in each construct met the criteria, so they were declared to be valid convergently.

Table 2. Convergent Validity Test

Variabel	Indikator	Outer Loading	AVE
Workload (X1)	X1.1 – X1.6	0,755 – 0,852	0,656
Competence (X2)	X2.1 – X2.10	0,702 – 0,908	0,655
Work Stress (X3)	X3.1 – X3.7	0,742 – 0,945	0,744
Employee Performance (Y)	Y1 – Y8	0,744 – 0,922	0,701
Work Culture (Z)	Z1 – Z10	0,704 – 0,920	0,696

This is shown by the outer loading value which is entirely above 0.70 and the Average Variance Extracted (AVE) value of each variable above 0.50 (Working Load 0.656; Competence 0.655; Work Stress 0.744; Employee Performance 0.701; Work Culture 0.696). Thus, the indicator is able to adequately reflect the measured construct.

**Discriminatory Validity**

This study uses the Heterotrait-Monotrait Ratio (HTMT) method as a substitute for the Fornell-Larcker criterion, considering that the HTMT approach is considered more accurate in measuring discriminant validity. A construct is declared to have good discriminant validity if the HTMT value < 0.90.

Table 3. Discriminant Validity Test (HTMT)

Variabel	BK	KMP	SK	KP	BD	ME1	ME2	ME3
Workload	-							
Competence	0,339	-						
Work Stress	0,863	0,203	-					
Employee Performance	0,358	0,644	0,281	-				
Work Culture	0,183	0,814	0,137	0,596	-			
Moderating Effect 1	0,205	0,272	0,235	0,064	0,180	-		
Moderating Effect 2	0,183	0,456	0,093	0,263	0,245	0,408	-	
Moderating Effect 3	0,255	0,157	0,231	0,065	0,108	0,890	0,255	-

This table explains that all correlation values between constructs are below the threshold of 0.90, with the highest value of 0.890. This confirms that each construct has clear differences and there is no overlap between variables, so that the validity of the discriminator is well met. The entire HTMT value was below 0.90, so it can be concluded that the model has met the discriminant validity well.

### Reliability

Construct reliability is measured using Cronbach's Alpha, rho\_A, and Composite Reliability. A variable is declared reliable if the values > 0.70.

Table 4. Reliability Test

Variabel	Cronbach's Alpha	rho A	Composite Reliability
Workload	0,895	0,901	0,919
Competence	0,940	0,946	0,950
Work Stress	0,942	0,960	0,953
Employee Performance	0,951	0,955	0,958
Work Culture	0,938	0,947	0,949
Moderating Effect 1	1,000	1,000	1,000
Moderating Effect 2	1,000	1,000	1,000
Moderating Effect 3	1,000	1,000	1,000

The results of the reliability test showed that all variables had Cronbach's Alpha and Composite Reliability values above 0.70 (range 0.895–0.958). This indicates that the research instrument has excellent internal consistency and is reliable in measuring research variables.

### Evaluation of Structural Models (Inner Model)

After the measurement model is declared valid and reliable, a structural model evaluation is carried out to test the relationship between variables.

### Goodness of Fit and R-Square (R<sup>2</sup>)

The R-Square value indicates the ability of exogenous variables to explain endogenous variables.

Table 5. R-Square Value

Variabel	R Square	R Square Adjusted
Work Culture	0,601	0,584
Employee Performance	0,487	0,433

The model was able to explain 48.7% of the variation in employee performance, which is classified as moderate. The research model had an excellent feasibility level with an SRMR value of 0.038 (< 0.08). The R-Square value shows that the variables in the model are able to explain 48.7% of the variation in employee performance (moderate category), while 60.1% of the variation in work culture can be explained by the exogenous variables in the model.

### Hypothesis Testing (Path Coefficient)

Hypothesis testing is based on T-Statistics (> 1.96) and P-Values (< 0.05)

Table 6. Path Coefficient and Hypothesis Test Results

Relationship Variables	Koefisien	T-Statistics	P-Values	Decision
Workload → Employee Performance	0,013	0,056	0,955	Not Significant (Rejected)
Competence → Employee Performance	0,449	2,837	0,005	Significant (Accepted)
Work Stress → Employee Performance	0,117	0,488	0,626	Not Significant (Rejected)
Moderating Effect 1 → Performance	0,696	2,443	0,015	Significant (Accepted)
Moderating Effect 2 → Performance	-0,106	0,690	0,490	Not Significant (Rejected)
Moderating Effect 3 → Performance	-0,678	2,136	0,033	Significant (Accepted)

The test results show that workload does not have a significant effect on employee performance. Competence has a positive and significant effect on employee performance. Work stress does not have a significant effect on employee performance. Work culture significantly moderates the relationship between workload and performance, as well as between work stress and performance. Work culture does not moderate the relationship between competence and performance.

#### Effect Size ( $f^2$ )

The value of  $f^2$  is used to assess the strength of the predictor's influence on endogenous variables (0.02 = small; 0.15 = medium; 0.35 = large).

Table 7. Effect Size ( $f^2$ )

Variable	On Performance	Information
Workload	0,004	Very small
Competence	0,075	Small
Work Stress	0,002	Very small
Work Culture	0,046	Small
Moderating Effect 1	0,012	Very small
Moderating Effect 2	0,006	Very small
Moderating Effect 3	0,003	Very small

The effect size value shows that the direct contribution of variables to employee performance is relatively small to very small. However, competence has a very large contribution to work culture ( $f^2 = 1.617$ ), which suggests a strong relationship in the context of the organization.

#### Predictive Relevance ( $Q^2$ )

Predictive relevance was measured using  $Q^2$  values ( $Q^2 = 1 - \text{SSE}/\text{SSO}$ ). The model is said to have good predictive ability when  $Q^2 > 0$ .

Table 8. Predictive Relevance ( $Q^2$ )

Variable Endogen	SSO	SSE	$Q^2$
Work Culture	750,000	437,350	0,417
Employee Performance	600,000	421,778	0,297

Both  $Q^2$  values  $> 0$ , so the model has good predictive capabilities. The  $Q^2$  values for work culture (0.417) and employee performance (0.297) were above zero, which means the model has good predictive capabilities and adequate predictive relevance.

### Discussion of Research Results

#### The Effect of Workload and Work Stress on Performance

The results of the study show that workload and work stress do not have a significant effect on employee performance. This finding can be explained by the characteristics of the respondents who are dominated by productive age (26–35 years) with optimal working capacity. In addition, a work system

that has been digitized and has clear standard operating procedures (SOPs) allows employees to manage work pressure effectively. Thus, workload and work stress are not directly determinants of performance, but rather depend on individual adaptability and a supportive work system.

### **The Influence of Competency on Performance**

Competency has proven to be the most dominant factor in influencing employee performance. The high level of education (majority of S-1) supports the analytical and technical abilities of employees in carrying out their duties, especially in the management of complex academic data. These findings are in line with human capital theory which emphasizes that competence is the main asset in increasing organizational productivity. Competent employees tend to be able to work more effectively, efficiently, and produce high-quality outputs.

### **The Role of Work Culture Moderation**

Work culture has been shown to play a significant role as a moderation variable in the relationship between workload and work stress on performance. A positive work culture is able to turn work pressure into a productive challenge and function as a protective mechanism against the negative impact of work stress. However, work culture does not moderate the relationship between competence and performance. This shows that competence is intrinsic and still has an independent effect on performance, regardless of the conditions of the work environment.

### **Comparison with Previous Research**

The results of this study are consistent with the findings of Sitompul and Simamora (Sitompul & Simamora, 2021), (Nengah Weni et al., 2023), and (Putri et al., 2023) who stated that workload does not have a significant effect on performance. In addition, the significant effect of competence on performance is in line with the research of Nurbiyanti et al. (Nurbiyanti et al., 2026), (Hasyim & Rokhmatin, 2021), and (Ferils, 2022). Meanwhile, the finding that work stress did not have a significant impact on moderate levels also reinforced the results of Ferils' research (Ferils, 2022) and Zahro and Abadiyah (Zahro et al., 2024), which state that stress to some extent can still be managed without degrading performance.

### **Novelty and Research Contributions**

The main novelty of this research lies in the integration of work culture as a moderation variable in the context of open universities, which has different characteristics compared to the industrial sector or conventional organizations. This research provides an empirical contribution that in organizations with large scale services and distance education systems, work culture does not function as a direct factor that improves performance, but rather as a strategic variable that acts as a "buffer" or protector. A strong work culture has been proven to be able to mitigate the impact of fluctuations in administrative workload and operational stress, so that employee performance is maintained. Thus, this study enriches the literature on human resource management, particularly in understanding the role of work culture moderation in the context of distance education service-based organizations.

### **Conclusion**

Conclusion Based on the results of the analysis of employees at the Directorate of Academic Administration and Graduation (DAAK) of the Open University, it can be concluded that competence is the main and most dominant factor that has a positive and significant effect directly on improving employee performance. These findings are in line with research by Dewi et al. (Dewi et al., 2020) who also emphasized that improving work competence actually leads to improving employee performance (Dewi et al., 2020). On the other hand, the workload and work stress experienced by employees in the unit was proven to have no significant influence directly on their performance achievements. This conclusion is validated by the findings of Ainayah et al. (2023) and Dewi et al. (2020) who consistently prove that work stress and high workload do not always have a significant direct negative effect on performance achievement (Zahro et al., 2024).

However, an essential role in these operational dynamics is held by the work culture that acts as a moderation variable. A positive organizational work culture has been empirically proven to be able to moderate or control the impact of high workloads and work stress levels on employee performance, so that productivity can be maintained optimally even under the pressure of massive administrative tasks. The existence of a strong organizational culture is crucial, as supported by Owens et al. (Owens et al., 2017) and Kang et al. (Kang et al., 2023) who confirm that organizational values and culture have a direct

impact on the wellbeing and engagement of staff in the face of stress (Kang et al., 2023); (Owens et al., 2017). On the other hand, work culture has not been proven to moderate the relationship between competence and performance, which at the same time confirms that employees with high competence will independently and consistently produce good performance without always relying on the influence of work culture.

Limitations of the Research Although it was conducted comprehensively, this research still has some limitations. First, the scope of the population and sample in this study is very specific and limited, involving only 75 respondents with saturated sampling techniques in one operational work unit, namely DAAK Open University. This makes the generalization of research results on other institutions or work units that have different environmental characteristics limited. This is similar to the limitation expressed by Ntjikelane et al. (2025), where a small, facility-specific sample precludes broader stratification and generalization (Ntjikelane et al., 2025).

Second, data collection relies heavily on questionnaire instruments with the Likert Scale, which have subjectivity vulnerabilities where respondents' answers are potentially biased or do not fully reflect the actual psychological conditions in the field. In this regard, (Rama et al., 2025) and Hariyadi et al. (2023) also underlined that reliance on self-reported measures is indeed vulnerable to bias that can limit the reliability of findings. Third, based on the results of the determination coefficient test (R-Square), the variable model in this study was only able to explain 48.7% of the variation in employee performance. This means that there are still 51.3% of other major influences that come from external variables outside the research model that have not been involved.

Recommendations and Implications of Future Research From the findings of this study, the practical implications that can be applied by the management of DAAK Open University are the priority to continue investing in the development of employees' technical and analytical competencies through ongoing job training programs. Organizations are also strongly advised to maintain a positive and collaborative work culture climate, as well as organize a proportionate division of tasks to mitigate the potential adverse impacts of workload fluctuations and operational stress. This approach is particularly relevant to the suggestion of Ibrahim et al. (2024), where support from the environment (such as adaptive social or cultural support) plays a crucial role in mitigating conflict and work stress (Ibrahim et al., 2024).

For future academic and research development, it is recommended to expand the scope of the object of observation, both to various other work units within the Open University and colleges with similar educational models, so that the findings can be compared and produce more holistic insights. In addition, researchers are further encouraged to explore and add other variables that have not been studied to close the gaps in the weaknesses of the current model, such as leadership factors, work motivation, work environment, job satisfaction, and compensation policies. Including additional variables such as job satisfaction (Zahro et al., 2024) and empowering leadership (Kang et al., 2023) is believed to refine the predictive model in future studies.

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