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The role of work discipline in enhing lecturer performance in indonesian aviation higher education

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ABSTRACT

This research examines the impact of work discipline on the performance of lecturers at the Akademi Penerbang Indonesia (API) Banyuwangi. A quantitative approach was employed, using Partial Least Squares Structural Equation Modeling (PLS-SEM) to evaluate data gathered from 19 lecturers via structured questionnaires. The results indicate that work discipline has a positive and statistically significant effect on lecturer performance. However, the model accounts for only a small fraction of the variance, implying that other factors also influence performance outcomes. These findings highlight the necessity of reinforcing disciplinary practices as part of comprehensive human resource management strategies to improve institutional effectiveness, especially in vocational aviation education.

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1. INTRODUCTION

In the rapidly evolving landscape of higher education, the performance of lecturers plays a crucial role in determining the quality of education and the success of academic institutions (Murwaningsih & Fauziah, 2023). The effectiveness of lecturers influences the productivity and performance of educational institutions and makes a significant contribution to the quality of higher education (Miftakul Amin & Dwitayanti, 2023). A disciplined approach often results in more consistent performance over time, benefiting both lecturers and students (Santos-Díaz et al., 2024). In aviation-focused educational institutions such as API Banyuwangi, the importance of discipline is even more pronounced. Research, community service, education and teaching, and lecturer support responsibilities are some of the factors that determine a professor's performance level (Buditjahjanto et al., 2024; Retnowati et al., 2021). The elements that affect lecturer performance have been the subject of several several research, especially those published in scientific journals (D. O. Sari et al., 2024; Wahjudi et al., 2024). Lecturers have the power to be creative when it comes to discipline. One of the things that can indicate how well personnel are performing is their work discipline (Farida et

al., 2021). Maintaining discipline at work can lead to improved output (Chrisnanto & Riyanto, 2020; Oktari & Suhardi, 2021; Rivai, 2017; Salsabilla et al., 2022).

Among the various factors influencing performance, work discipline is often highlighted as a key determinant. t demonstrates a person's capacity to adhere to company policies, effectively manage their time, and reliably meet work responsibilities. The advancement of an institution is largely dependent on its workforce, so it is critical to improve their performance, which includes fostering work discipline (P. R. J. Sari & Snelling, 2024). In academic environments, disciplined behavior can be observed through punctuality, adherence to deadlines, and commitment to institutional standards.. Work discipline has tried to regulate subordinates' behavior through a number of regulations in order to help achieve its objectives (Nelly et al., 2024; Rostina, 2022).

However, despite this theoretical assumption, a critical gap remains between the expected level of lecturer performance and the actual outcomes observed in aviation higher education. Institutions expect lecturers to demonstrate high levels of discipline aligned with the strict, regulated nature of the aviation industry. In practice, however, this expectation is not always fully realized. Variations in punctuality, compliance with academic responsibilities, and consistency in professional conduct indicate that work discipline is not always translated into optimal performance outcomes. Some research indicates that measuring work discipline and its impacts may be challenging, as seen by findings that, in certain circumstances, do not connect work discipline to employee performance (Kelibulin et al., 2020). However, it will be able to improve these workers' performance and achieve company objectives if they have good work discipline, such as arriving on time, finishing jobs in accordance with corporate requirements, and adhering to company rules (Marlapa & Mulyana, 2020). The primary reasons for the inefficient implementation of the institution are poor work discipline and inadequate instruction and training (Marnisah et al., 2021). Technology's intervention in the workplace has completely changed how jobs are planned, debated, carried out, and delivered (Momin & Ali, 2023). The competence levels of lecturers at public and private institutions differed noticeably, according to a study done in the Maldives. This suggests that public institutions should adopt more efficient recruitment and professional development strategies (Zuha et al., 2023). A Kazakhstani study indicated that work-life balance, job responsibility, drive, and professionalism were significant factors influencing professor output. This implies that firms should adopt human resource strategies to enhance job design and lecturer assistance programs (Selvanathan et al., 2019). Another study emphasized the importance of motivation in improving performance by examining the relationship between IT usage and motivation on lecturer performance (Arief et al., 2020).

This gap is particularly important in aviation education, where the consequences of underperformance extend beyond academic outcomes to professional readiness and safety standards. While institutions emphasize discipline as a core value, there is limited empirical evidence explaining how and to what extent work discipline actually contributes to lecturer performance in this highly specialized educational context. Additionally, existing studies tend to focus on general higher education settings, leaving aviation-specific institutions underexplored. Therefore, this study addresses this gap by examining the role of work discipline in influencing lecturer performance within aviation higher education. By focusing on API Banyuwangi as a case study, this research aims to provide empirical evidence on whether work discipline effectively bridges the gap between expected and actual performance. The findings are expected to contribute both theoretically by clarifying the role of discipline in a specialized context and practically by informing human resource management strategies in aviation education institutions.

2. RESEARCH METHOD

This research adopts a quantitative approach to examine the relationship between work discipline and lecturer performance. The study focuses on numerical data analysis to test the proposed hypothesis in a structured and systematic manner. Quantitative research is the deliberate collection of information using numerical data, and it is commonly used to test concepts (Arias et al., 2021; Helmold, 2019). It entails measuring and quantifying the evaluated subject, and the results are always measurable (England, 2022; Sciberras & Dingli, 2023). Non-probability sampling, which is suitable for exploratory and context-specific research, was used to choose 19 professors in total. Probability sampling and non-probability sampling are the two primary sampling techniques utilized in educational research (Berndt, 2020; Setia, 2016). Given that aviation higher education institutions are typically specialized and relatively small in scale, the sample size reflects the actual accessible population within the institution. However, the use of a small sample size has important implications for the strength and interpretation of the statistical analysis. A limited number of observations may reduce the statistical power of the model, potentially increasing the risk of Type II errors and limiting the generalizability of the findings beyond the studied context (Goulet & Cousineau, 2019). In addition, small samples may lead to less stable parameter estimates and reduce the robustness of inferential conclusions (Hamid et al., 2016). Therefore, the results of this study should be interpreted with caution, particularly when attempting to generalize to broader higher education settings.

Despite these limitations, Partial Least Squares Structural Equation Modeling (PLS-SEM) was selected as the analytical method because it is well-suited for studies with small sample sizes and does not require strict assumptions of normal data distribution. PLS-SEM is particularly appropriate for exploratory research and theory development, as it prioritizes prediction and variance explanation rather than model fit alone. This method allows simultaneous evaluation of both the measurement model (validity and reliability) and the structural model (hypothesis testing), making it a robust choice under constrained sample conditions. Data were collected through a structured questionnaire consisting of five items measuring work discipline (independent variable) and four items measuring lecturer performance (dependent variable). The questionnaire design enables systematic data reduction, association analysis, and hypothesis testing (Koetsenruijter & Wensing, 2023). The analysis was conducted using SmartPLS software. Reliability and validity were assessed through indicator loadings, composite reliability, Cronbach's alpha, and Average Variance Extracted (AVE). Hypothesis testing was performed using a bootstrapping procedure with 5,000 subsamples to enhance the stability and reliability of the estimates, which is particularly important given the small sample size.

3. RESULTS AND DISCUSSIONS

Convergent validity, internal consistency, and indicator reliability were used to evaluate the measurement model. Every indication loading was higher than the suggested cutoff point of 0.70, suggesting that the measurement items accurately reflect the corresponding structures.

Table 1 Construct Reliability and Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Lecturer Performance	0,879	0,921	0,915	0,739
Work Discipline	0,897	0,924	0,917	0,721

Reliability analysis showed that both Cronbach's alpha and composite reliability values were above the acceptable level of 0.70, confirming strong internal consistency. In addition, the Average Variance Extracted (AVE) values for all constructs exceeded 0.50, demonstrating satisfactory convergent validity. The importance of the association between the variables in the model was tested by data analysis using SmartPLS 3 and the PLS-Algorithm technique. During the bootstrapping phase, 5000 subsamples were employed to ensure the results were stable.

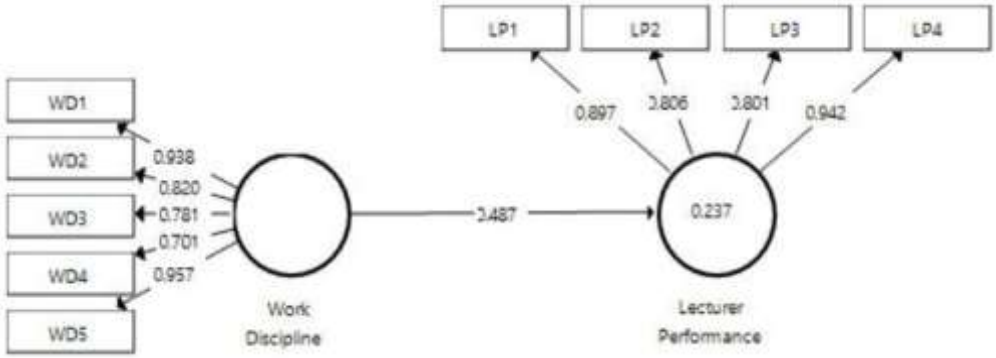

Figure. 1 PLS-Algorithm Calculated

Table 1 Structural Model Analysis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
WD -> LP	0,487	0,541	0,229	2,123	0,034

The structural model analysis indicates that work discipline has a positive effect on lecturer performance, with a path coefficient of 0.487. The relationship is statistically significant, as indicated by a t-statistic value exceeding the critical threshold and a p-value below 0.05.

Table 2 Coefficient of Determination R Square

	R Square	R Square Adjusted
Lecturer Performance	0,245	0,189

However, the coefficient of determination (R^2) for lecturer performance is 0.245, indicating that work discipline explains only 24.5% of the variance in lecturer performance. While this confirms the relevance of discipline, it also suggests that a substantial proportion (75.5%) of performance variation is influenced by other factors not included in the model. This limitation has important practical consequences. By relying on a model with only one independent variable, institutions may risk overemphasizing work discipline as the primary lever for improving lecturer performance. In practice, this could lead to the implementation of policies that focus heavily on control mechanisms—such as attendance monitoring, rule enforcement, and compliance systems—while neglecting other critical determinants of performance, including motivation, leadership, organizational culture, professional development, and institutional support.

As a result, performance improvement initiatives based solely on discipline may produce only partial or short-term outcomes. For example, lecturers may comply with formal rules (e.g., punctuality or administrative requirements) without necessarily improving the quality of teaching, research productivity, or innovation. This indicates that discipline alone is insufficient to drive holistic performance improvement in aviation higher education. Furthermore, the single-variable model limits the ability of

decision-makers to design comprehensive human resource strategies. Without incorporating additional explanatory variables, the model does not capture the complexity of lecturer performance, which is inherently multidimensional. Consequently, policies derived from this model may lack strategic depth and fail to address underlying performance issues. Despite these limitations, the findings remain valuable in highlighting that work discipline is a significant, albeit partial, predictor of lecturer performance. In the context of aviation education—where safety, precision, and compliance are critical—discipline serves as a foundational element. However, it should be integrated with broader organizational strategies. Institutions are therefore encouraged to adopt a more holistic approach by combining disciplinary policies with initiatives that enhance motivation, leadership quality, and institutional support systems.

Table 3 Effect Size f Square Results

	Lecturer Performance	Work Discipline
Lecturer Performance		
Work Discipline	0,322	

In addition, the moderate effect size ($f^2 = 0.322$) indicates that work discipline has a meaningful impact on performance, reinforcing its importance within a broader framework. The model fit indices suggest an acceptable but not optimal fit, further supporting the need for model expansion in future research.

Table 4 Model Fit Indices

	Saturated Model	Estimated Model
SRMR	0,107	0,107
d_ULS	0,503	0,503
d_G	0,389	0,389
Chi-Square	33,977	33,977
NFI	0,783	0,783
Rms Theta	0,335	0,335

The model fit assessment shows that the Standardized Root Mean Square Residual (SRMR) value is slightly above the recommended threshold, indicating that the model fit is acceptable but not optimal. Similarly, the Normed Fit Index (NFI) suggests a moderate level of fit, implying that improvements to the model could enhance its explanatory power. Overall, this study emphasizes that while work discipline is essential, its practical application must be balanced with other performance-driving factors to achieve sustainable improvements in lecturer performance, particularly in specialized fields such as aviation higher education.

4. CONCLUSION

This study demonstrates that work discipline has a positive and statistically significant effect on lecturer performance in aviation higher education. Lecturers who consistently adhere to institutional rules, professional standards, and responsibilities tend to achieve better performance outcomes. However, the relatively low explanatory power of the model indicates that discipline alone is not sufficient to fully explain variations in lecturer performance.

From a theoretical perspective, this study contributes to the development of the concept of work discipline in higher education by positioning it as a foundational yet partial determinant of performance rather than a dominant or standalone factor. While previous studies often treat work discipline as a direct and primary predictor of

employee outcomes, the findings of this research suggest that its role is more nuanced, particularly within specialized educational contexts such as aviation. Work discipline functions as a baseline condition that ensures consistency, compliance, and minimum performance standards, but it must interact with other variables—such as motivation, leadership, and organizational support—to produce optimal outcomes. Furthermore, this study extends the literature by contextualizing work discipline within aviation higher education, where regulatory compliance, safety orientation, and professional rigor are more pronounced than in general academic settings. This context-specific insight highlights that the meaning and impact of discipline may vary across institutional environments, thereby encouraging future research to adopt a more situational and integrative perspective in examining lecturer performance.

From a practical standpoint, the findings suggest that higher education institutions should not rely solely on disciplinary mechanisms to enhance performance. Instead, a balanced approach that integrates discipline with broader human resource strategies is necessary. Strengthening institutional policies, fostering supportive organizational environments, and enhancing lecturer motivation are essential to achieving sustainable performance improvement. This study is subject to several limitations, including the small sample size and the use of a single independent variable, which constrain the generalizability and explanatory power of the model. Therefore, future research is recommended to incorporate additional variables and larger, more diverse samples to develop a more comprehensive understanding of lecturer performance. In conclusion, this study highlights that work discipline is a necessary but insufficient condition for achieving high lecturer performance, and its theoretical role should be understood within a broader, multidimensional framework of performance management in higher education.

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