

The Mediation Role of Competency in the Influence of Work Environment on Employee Performance

Muji Rahayu¹

Sekolah Tinggi Ilmu Ekonomi Stan Im

Chandra Kesuma widhiarti²

Sekolah Tinggi Ilmu Ekonomi Stan Im

Evan Jaelani³

Sekolah Tinggi Ilmu Ekonomi Stan Im

Duma Soswati Ritonga⁴

Sekolah Tinggi Ilmu Ekonomi Stan Im

Correspondence : Muji Rahayu (mrahayu@stan-im.ac.id)

Submitted : 18-11-2025, Accepted : 20-12-2025, Published : 20-01-2026

Abstract

This study aims to analyze the role of competence as a mediator variable in the relationship between the work environment and employee performance. The study population included all employees of the Sumedang Regency Civil Service and Human Resources Development Agency (BKSDM). The sampling technique used saturated sampling, so that all 53 respondents were used as research samples. Data collection was carried out by distributing questionnaires to predetermined respondents. The collected data were then analyzed using a mediation analysis method with the Hayes Macro Process approach. The results of the hypothesis testing indicate that the work environment and competence have a positive and significant effect on employee performance, both partially and simultaneously. In addition, the analysis results show that the indirect effect of the work environment on performance through competence is significant and has a larger coefficient than the direct effect. These findings prove that competence plays a significant role as a mediator, so that a conducive work environment can optimally improve employee performance.

Keywords : Competence, Performance, Work Environment.

Introduction

Organizational performance is the main indicator of the extent to which an organization is able to achieve its strategic goals effectively and efficiently (Conțu, 2020). Every results-oriented organization needs to conduct continuous performance management to ensure that operational activities and strategies are on track toward achieving their vision and mission. Good performance helps organizations gain a competitive advantage in a rapidly changing environment because it influences their ability to adapt to external challenges (Conțu, 2020). By conducting performance evaluations, organizational management can identify internal strengths and weaknesses, which can then be used as a basis for developing future strategic improvements (Febrianti et al., 2024). In addition, effective performance management contributes to increased employee productivity and motivation through the establishment of clear work goals and regular feedback. When employees

understand what is expected of them, organizations can optimize the potential of their human resources to produce better output. (Gibson, 2016).

Organizational performance also plays a crucial role in strategic planning; without an accurate understanding of performance, it is difficult for organizations to set realistic directions and make informed decisions based on data. Organizational performance is the result of evaluating individual work against established criteria, influenced by internal (ability, attitude) and external (environmental, organizational support) factors to achieve common goals, with key indicators such as quality, quantity, timeliness, effectiveness, independence, and commitment. Understanding organizational behavior helps improve performance through productivity, effective leadership, conflict management, and job satisfaction, supported by a healthy culture and structure. (Robbins & Judge, 2016).

Literature Review

Competence

Competence is the character of attitudes and behavior, or the willingness and ability of an individual that is relatively stable when facing situations and workplaces that are formed from the synergy between character, self-concept, internal motivation, and conceptual knowledge capacity. (Lyle M. Spencer, 1993). According to Sutrisno (Sutrisno, 2013) “Competence is an ability based on skills and knowledge supported by work attitudes and their application in carrying out tasks and work that refers to the established work requirements. (Moehariono, 2018). McShane and Glinow explain that competencies are skills, knowledge, values, talents, direction and other personal characteristics which will lead to superior performance.(McShane & Glinow, 2018)

Several empirical studies have found the role of competence as a mediator in the relationship between work environment and performance; for example, research by (Sitorus & Mesra, 2025) this study shows that the work environment mediates the influence of competence on employee performance at the North Sumatra Provincial Finance Agency, where competence improves performance by creating a conducive work environment. Various empirical studies have shown that competence plays a very important role in improving employee performance in various types of

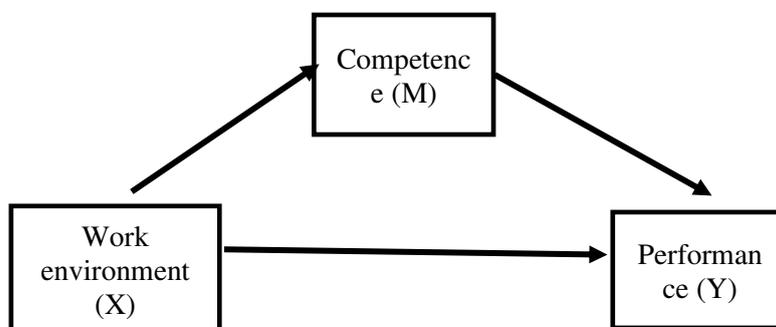
organizations. A study conducted by (Wulandari & Hasanah, 2025), (Admaja et al., 2025), (Verianto, 2024) this study proves that competence is positively and significantly related to employee performance in the contractor services sector, indicating that increasing individual knowledge, skills, and abilities will have a direct impact on the quality of work results achieved. Similar findings were also obtained (Lubis et al., 2024) which states that employee competence has a positive and significant effect on performance, where individual competence can increase work effectiveness, resulting in more optimal work results. However, there are also findings that competence does not have a positive and significant effect on performance. (Leki et al., 2024).

Work environment

The work environment is the totality of tools, materials, conditions, and situations surrounding the workplace that influence employees in carrying out their duties and responsibilities. The work environment encompasses both physical and non-physical aspects. The physical work environment includes lighting, air temperature, noise, layout, cleanliness, and job security. Meanwhile, the non-physical work environment relates to work relationships, work atmosphere, communication, and the organizational climate created between superiors and subordinates and between employees. Sedarmayanti emphasized that a good work environment will provide a sense of security, comfort, and support employee concentration. These conditions directly impact employee morale, job satisfaction, and performance. Conversely, a less conducive work environment can cause fatigue, stress, and reduce productivity. Therefore, organizations need to pay attention to and optimally manage the work environment so that organizational goals can be achieved effectively and efficiently through the support of maximum human resource performance. (Sedarmayanti, 2017).

Various empirical studies have shown that the work environment plays a significant role in determining employee performance. For example, Aminah's research found that the work environment had a positive and significant effect on employee performance. A study at the Binjai City Social Services Department also demonstrated a positive and significant influence of the work environment on employee performance (Sitorus & Mesra, 2025) and other studies show that the work

environment has a positive and significant impact on performance. (Rahayu, 2025), (Ngebursian, 2024). (Hayani et al., 2021). However, research at Bank Syariah Indonesia Medan Raya found that the work environment did not have a significant effect on employee performance (Syahnant & Mesra, 2024). However, other studies show that the quality of the work environment is not significant to the performance of company employees without a strong labor relations strategy. (Fauziyah et al., n.d.) Based on the theory and empirical data presented, the research model can be presented as follows:



Picture 1. Research Analysis Model and Hypothesis

Based on the research model and analysis above, the hypotheses in this study are:

H1: The work environment has a positive and significant influence on performance.

H2: Competence has a positive and significant influence on performance.

H3: The work environment and competence have a positive and significant influence on performance.

H4: Competence mediates the influence of the work environment on performance

Methods

This study employs a quantitative method with a descriptive nature and utilizes a mediation analysis approach developed in the PROCESS model by Hayes. Mediation analysis is used to explain the role of mediator variables in transmitting the influence of the independent variable (X) on the dependent variable (Y). The PROCESS model is utilized to evaluate the significance of indirect effects through a bootstrapping procedure. The bootstrapping procedure is carried out by generating a large number of random re-samples from the research data to form an empirical distribution of the mediation effect and determine the confidence interval. A mediation effect is

declared significant if the obtained confidence interval does not cross or contains the value zero. The research implementation begins with designing a conceptual framework and formulating hypotheses based on theory and previous research findings. Data collection is carried out by distributing research instruments in the form of questionnaires with measurements using a Likert scale. The collected data are then analyzed using SPSS software with the help of Macro PROCESS, by determining the independent, mediator, and dependent variables and determining the number of bootstrap repetitions. The results of the mediation analysis obtained include estimates of the total effect, direct effect, and indirect effect between the research variables. (Hayes, 2018).

Results and Discussion

Partial Test Results

Table 1. Partial Test Table

Variables	Coeff	Se	T	p
Work environment	,3618	,1059	3,4174	,0010
Competence	,6440	,0817	7,8860	,0000

Source: data processing (2025)

Dependent variable: Performance

Table 1 shows the influence of the work environment on performance with a coefficient value of 0.3618 and a p-value of 0.001, which is smaller than 0.05. This means that although the work environment has a positive and significant influence on performance, the first hypothesis (H1) can be confirmed. The results of testing the influence of competence on performance, shown in Table 2, obtained a coefficient value of 0.6440 and a p-value of 0.0000 (<0.05). This means that competence has a positive and significant influence on performance, so the second hypothesis (H2) is proven.

Simultaneous Test Results

Table 2. Simultaneous Test

	MSE	F	df1	df2	P
Constant	8,8991	113,2130	2,0000	79,0000	0,0000

Source: data processing (2025)

Dependent variable: Performance

The simultaneous test results presented in Table 2 indicate that the competency and work

environment variables simultaneously have a significant effect on performance, with a p-value of 0.000 (<0.05). Therefore, the third hypothesis (H3) can be confirmed.

Total Effect, Direct Effect, dan Indirect Effect

Table 3. Total Effect

Effect	Se	t	P
,9210	,1020	9,0280	,0000

Source: data processing (2025)

Table 4. Direct Effect

Effect	Se	t	P
,3618	,1059	3,4174	,0010

Source: primary data processing (2025)

Table 5. Indirect Effect

Effect	BootSE	BootLLCI	BootULCI
,5931	,1585	,2965	,9176

Source: primary data processing (2025)

Tables 3 and 4 show that the total effect of the work environment on performance through competency is 0.9210. This value consists of a direct effect of 0.3618 and an indirect effect of 0.5931, with a p-value of 0.0000 (<0.05), indicating significance.

Table 5 confirms the fourth hypothesis (H4), that the work environment mediates the effect of the work environment on performance. This is supported by the indirect effect being greater than the direct effect, as well as the BootLLCI confidence intervals of 0.0204 and BootULCI of 0.0398, which do not include zero. Thus, it can be concluded that the influence of the work environment on performance through competency is significant.

Conclusion

Based on the research discussion, it can be concluded that the work environment and competency play a crucial role in improving performance. Partial test results indicate that the work environment has a positive and significant effect on performance, as indicated by a coefficient of 0.3618 with a p-value of 0.001 (<0.05). This finding indicates that the better the perceived work environment, both physically and non-physically, the more likely performance is to improve. Therefore, the first hypothesis (H1) is accepted.

Furthermore, competency has also been shown to have a positive and significant effect on performance. The coefficient of 0.6440 with a p-value of 0.0000 (<0.05) indicates that competency is a dominant factor in driving improved performance. This confirms that an individual's knowledge, skills, and abilities significantly determine success in carrying out work tasks and responsibilities. Therefore, the second hypothesis (H2) is confirmed.

Simultaneous test results support this finding, where competency and the work environment simultaneously have a significant effect on performance, with a p-value of 0.000 (<0.05). These findings indicate that performance improvement is not determined by a single factor, but rather results from the synergy between a conducive work environment and adequate competencies. Thus, the third hypothesis (H3) can be confirmed.

Furthermore, analysis of the total effect, direct effect, and indirect effect showed that the work environment had a total influence on performance of 0.9210. This influence consisted of a direct effect of 0.3618 and an indirect effect through competence of 0.5931, which was statistically significant. The larger indirect effect value compared to the direct effect and the confidence interval that did not include zero indicated a strong mediating role. This proves that competence significantly mediates the influence of the work environment on performance, thus accepting the fourth hypothesis (H4). Overall, this study confirms that performance improvement efforts need to focus on creating a supportive work environment and continuous competency development.

Based on the study's conclusions, there are two important recommendations for organizational management. First, management is advised to continuously create and maintain a conducive work environment, both physically and non-physically. Improvements to work facilities, ergonomic space arrangement, adequate lighting and air circulation, and the creation of a harmonious and communicative work climate should be prioritized. A comfortable and supportive work environment will help employees work with greater focus, motivation, and productivity, thus directly impacting improved performance. Second, management needs to prioritize the systematic and sustainable development of human resource competencies. This can be done through planned training, education, coaching, and competency evaluation programs tailored to the organization's

needs. Given that competency has been proven to be a dominant factor and mediator in improving performance, investing in improving employee knowledge, skills, and abilities will have a significant impact on achieving organizational goals. By integrating work environment management and competency development, organizations are expected to be able to improve performance optimally and sustainably.

References

- Admaja, F. A. D., Yuningsih, S. B. P., Ismail, G. D., Sofiati, N. A., & Sumawidjaya, R. N. (2025). 3. The Effect of Motivation and Competence on Employee Performance with Job Satisfaction as a Mediating Variable (Case Study at The Cidadap District Office of Bandung City). *Dinasti International Journal of Education Management and Social Science (DIJEMSS)*, 7(1).
- Conțu, E. G. (2020). Organizational performance – theoretical and practical approaches. *Proceedings of the International Conference on Business Excellence*, 14(1), 398–406.
<https://doi.org/https://doi.org/10.2478/picbe-2020-0038>
- Fauziyah, R., Rahadi, D. R., & Raisya, A. C. I. (n.d.). The effect of work quality and work environment on employee performance moderated by work relationship strategy. *Jurnal Ilmiah Manajemen*.
- Febrianti, A. N., Umami, A., & Mu'alimin. (2024). Perencanaan dan peningkatan kinerja organisasi. *Jurnal Penelitian Pendidikan Indonesia*, 10(2), 123–132.
- Gibson, J. L. (2016). *Organization Behavior: Structure Processes*. Mc Graw-Hill Irwin.
- Hayani, W., Asfiah, N., & Robbie, R. I. (2021). Effect of work environment and work motivation on employee performance at NTB Province hospitals. *Jurnal Manajemen Bisnis Dan Kewirausahaan*, 1(4), 299–307.
- Hayes, F. A. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression -Based Approach* (2nd ed.). Guilford Press.
- Leki, R., Tira, M. A., & Kadir, A. (2024). The Influence of Competence and Work Motivation on Employee Performance at the Office of the Population Control, Family Planning, Women Empowerment, and Child Protection Agency in Banjarbaru City. *International Journal of Economics, Business and Management Research*, 8(04).

- Lubis, A. Y., Harahap, I., Hasibuan, A. R., Hapsari, B. I., Sihotang, R., & Rahayu, S. (2024). The Role of Work Environment, Discipline, and Competence in Improving the Performance of Employees of the North Labuhanbatu Regency Education Office. *Journal of Finance and Business Digital (JFBD)*, 3(4), 307–320.
- Lyle M. Spencer, S. M. S. (1993). *Competence At Work: Models for Superior Performance*.
- McShane, & Glinow, V. (2018). *Organizational Behavior* (8th ed.). Mc Graw Hill Education.
- Moehariono. (2018). *Pengukuran Kinerja Berbasis Kompetensi*. Raja Grafindo Persada.
- Ngebursian, R. (2024). The Effect of Work Environment, Work Ethic and Organizational Culture on Employee Performance. *Jurnal Ilmiah Manajemen Kesatuan*, 12(5), 2085–2096.
- Rahayu, M. (2025). The Role of Motivation on Employee Performance With Work Environment Mediaton. *Journal of Management*, 4(2), 215–224.
- Robbins, S. P., & Judge, T. A. (2013). *Organizational Behavior* (15th ed.). Pearson Prentice Hall.
- Sedarmayanti. (2017). *Manajemen Sumber Daya Manusia*. Refika Aditama.
- Sitorus, H. F., & Mesra, B. (2025). The effect of the work environment on employee performance with job satisfaction as moderating variable in the Binjai City Social Service. *International Journal of Management, Economic and Accounting*.
- Sutrisno, E. (2013). *Budaya Organisasi* (3rd ed.). Kencana Prenada Media Group.
- Syahnant, & Mesra, B. (2024). The influence of the work environment and work morale on employee performance at Bank Syariah Indonesia Area Medan Raya. *International Journal of Society and Law*, 2(2). <https://doi.org/https://doi.org/10.61306/ijsl.v2i2.168>
- Verianto, H. (2024). Analysis Of The Effect Of Competence On Employee Performance With Job Satisfaction As An Intervening Variable. *Management Studies and Entrepreneurship Journal*, 5(2), 5693–5706.
- Wulandari, D., & Hasanah. (2025). The Influence of Competence and Work Environment on Employee Performance at PT. Kendali Bumi Semesta. *International Journal of Science and Society*, 7(1).