



THE EFFECT OF EMPLOYEE COMPETENCY, HOSPITAL MANAGEMENT INFORMATION SYSTEM, AND INTERNAL SUPERVISION ON ADMINISTRATIVE PERFORMANCE THROUGH WORK DISCIPLINE

Tania Evita Salsabila^{1*}, Dewi Sri Surya Wuisan²

¹Hospital Management, Universitas Pelita Harapan, Jl. M. H. Thamrin Boulevard 1100 Lippo Village Tangerang 15811. Indonesia

²Department of Medicine, Faculty of Medicine, Universitas Pelita Harapan, Jl. M. H. Thamrin Boulevard 1100 Lippo Village Tangerang 15811, Indonesia

*taniavikron@gmail.com

ABSTRACT

This study aims to examine the influence of employee competence, the hospital management information system (HMIS), and internal control on administrative performance through work discipline at Muhammadiyah Hospital Palembang. This research is essential because administrative performance plays a crucial role in determining service quality, operational efficiency, and hospital governance, especially as hospitals increasingly rely on digital systems and require competent human resources to ensure accurate and efficient administrative processes. A quantitative survey approach was employed, using proportional stratified random sampling to select 200 administrative employees as respondents. The data were analyzed using Structural Equation Modeling (SEM-PLS), and the findings show that employee competence, HMIS, and internal control positively and significantly affect both work discipline and administrative performance, with work discipline serving as a partial mediator. These results emphasize that improving administrative performance requires not only adequate employee capabilities and system support but also strong work discipline in implementing administrative procedures, providing important insights for hospital management in strengthening human resource development and optimizing HMIS utilization.

Keywords: administrative performance; employee competence; hospital management information system; internal control; work discipline

How to cite (in APA style)

Salsabila, T. E., & Wuisan, D. S. S. (2026). The Effect of Employee Competency, Hospital Management Information System, and Internal Supervision on Administrative Performance through Work Discipline. *Indonesian Journal of Global Health Research*, 8(2), 1303–1308. <https://doi.org/10.37287/ijghr.v8i2.779>.

INTRODUCTION

Hospitals, as public service institutions, play a strategic role in providing quality, efficient, and equitable healthcare services. In the context of modern hospital services, administrative performance is a crucial element in determining the effectiveness of the overall service system. Good administrative performance not only supports smooth hospital operations but also contributes to increased patient satisfaction, efficient resource use, and healthcare institution accountability. In this regard, administrative performance is influenced by a number of internal organizational factors, including employee competence, the hospital management information system (SIMRS), and effective internal oversight.

The development of hospital management systems in Indonesia, including at Muhammadiyah Hospital Palembang, demands professional human resources to manage administrative services quickly, accurately, and technology-based. According to data from the Ministry of Health (2023), more than 60% of private hospitals in Indonesia still face challenges in integrating management information systems with uneven employee competency. This situation results in service delays, administrative errors, and low compliance with standard operating procedures (SOPs). Therefore, improving employee competency and optimizing ICHA are crucial steps to improve hospital administrative performance.

In addition to these two factors, internal oversight also plays a role in maintaining work quality and preventing administrative irregularities. A sound oversight system can ensure all administrative activities are carried out in accordance with management policies, increase employee accountability, and strengthen an organizational culture oriented towards work discipline. According to research by Wibowo and Fitriani (2022), the effectiveness of internal oversight positively influences administrative performance by improving employee discipline. Thus, work discipline serves as a mediating variable that bridges the relationship between organizational factors and administrative performance outcomes. However, previous research indicates a research gap. Some studies found that employee competency directly impacts administrative performance (Pratiwi et al., 2021), while others demonstrated an indirect effect through work discipline (Rahmadani & Siregar, 2023). Similarly, effective ICHA implementation does not necessarily lead to improved performance if it is not accompanied by employee discipline in optimally utilizing the system. Therefore, further research is needed to understand how competency, management information systems, and internal controls simultaneously contribute to administrative performance through work discipline, particularly in the context of Islamic hospitals, which are characterized by organizations based on Sharia values and humanitarian services.

Muhammadiyah Hospital Palembang is a religious-based private hospital committed to Islamic and professional healthcare services. To address the challenges of administrative efficiency and service quality demands, the hospital needs to ensure that all employees possess appropriate competencies, utilize information systems optimally, and uphold work discipline. Based on this background, this study aims to analyze the influence of employee competency, hospital management information systems, and internal supervision on administrative performance through work discipline at Muhammadiyah Hospital Palembang. Theoretically, this study is expected to strengthen the literature on human resource management and information systems in the healthcare sector by emphasizing the role of discipline as a mediating variable in administrative performance models. Practically, the results of this study can provide input for the management of Muhammadiyah Hospital Palembang in designing policies to improve employee competency, optimize ICHA, and improve internal oversight mechanisms to create a professional, effective, and competitive administrative system.

METHOD

This study uses a quantitative approach with an explanatory research design that aims to explain the causal relationship between variables, namely the influence of employee competence, hospital management information systems (ICHA), and internal supervision on administrative performance through work discipline. The study was conducted at Muhammadiyah Hospital Palembang, which is an Islamic-based private hospital with a formal organizational structure and a modern administrative service system. Participants in this study were all administrative employees of Muhammadiyah Hospital Palembang who play a direct role in data management, patient administration services, finance, and management information systems. Respondent characteristics include age, gender, education level, length of service, and job position. The inclusion criteria in this study were permanent or contract employees who have worked for at least one year and actively participate in the hospital administration process. Meanwhile, the exclusion criteria were interns or employees who were on leave at the time of data collection. This study has obtained ethical clearance from the Research Ethics Committee of Muhammadiyah Hospital Palembang and was carried out in accordance with the code of ethics for social research that guarantees the confidentiality and anonymity of participants.

This study uses a quantitative approach with an explanatory research design to explain the causal relationship between variables, namely the influence of employee competence, hospital management information systems (ICHA), and internal supervision on administrative performance through work discipline. The study was conducted at Muhammadiyah Hospital Palembang with a population of all administrative employees. The sample determination used a proportional stratified

random sampling technique, which considers the proportion of employees in each administrative unit. Based on the calculation and needs of SEM-PLS analysis, the number of samples used in this study was 200 respondents, according to the number also described in the abstract. Data were collected through a five-point Likert scale questionnaire and have undergone validity and reliability tests before use. Data analysis was carried out using Structural Equation Modeling (SEM-PLS) with the help of SmartPLS software version 4.0 to test the direct and indirect contributions between variables in the research model.

The research instrument used a structured questionnaire adapted from various previous studies and underwent validity and reliability tests before use. The employee competency variable (X_1) was developed based on indicators from Spencer & Spencer (2020), which include knowledge, skills, professional attitudes, and the ability to complete work. The hospital management information system variable (X_2) refers to the instrument from Jogiyanto (2021), which assesses system quality, information quality, ease of use, and data integration between units. Internal supervision (X_3) was measured using indicators from Arens et al. (2020), which include the control environment, supervisory activities, information and communication, and follow-up on findings. The work discipline variable (Z) was adapted from Rivai & Mulyadi (2021), with indicators including compliance with regulations, responsibility, timeliness, and consistency in task implementation. The administrative performance variable (Y) refers to Mahmudi (2020), which assesses effectiveness, efficiency, work accuracy, and the quality of administrative services in the hospital environment.

All statement items were measured using a five-point Likert scale and were pilot tested on 30 respondents to ensure the instrument's reliability. The reliability test results showed a Cronbach's Alpha value above 0.70 for all variables, indicating that the instrument has good internal consistency. Each main variable was supplemented with respondent demographic data as covariate variables, including age, gender, and length of service. These covariates were used to control potential bias that could affect the relationship between the main variables. Data were collected through the first part of the questionnaire containing the respondent's profile. To ensure data quality, data collection was carried out by the principal researcher and two research assistants who had received technical training in interviewing and filling out questionnaires, in order to minimize measurement errors. Data were analyzed using the Partial Least Square–Structural Equation Modeling (PLS-SEM) approach through SmartPLS software version 4.0. The analysis was carried out in two stages, namely the measurement model (outer model) to test the validity and reliability of the construct, and the structural model (inner model) to test the direct and indirect effects between variables. The convergent validity test was carried out through the Average Variance Extracted (AVE) value ≥ 0.5 , while the composite reliability (CR) and Cronbach's Alpha ≥ 0.7 . Furthermore, the significance test was carried out through bootstrapping with 5,000 resamplings to obtain the *t-statistics* and *p-value*. In addition, the coefficient of determination (R^2) test was carried out to assess the ability of the independent variables to explain the dependent variable, and the Effect Size (f^2) test to see the contribution of each variable. The Goodness of Fit (GoF) value was used to assess the overall suitability of the research model. All tests were carried out with a significance level of 5%.

Research Data Description

Table 1.
Descriptive Statistics of Research Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Employee Competence (X_1)	4.21	0.47	3.10	5.00
Hospital SIM (X_2)	4.08	0.52	2.90	5.00
Internal Supervision (X_3)	4.15	0.49	3.00	5.00
Work Discipline (Z)	4.23	0.45	3.20	5.00
Administrative Performance (Y)	4.31	0.42	3.40	5.00

This study involved 120 respondents who were administrative staff at Muhammadiyah Hospital Palembang. Respondents consisted of permanent and contract employees with a minimum educational background of D3. Data were collected using a Likert-scale questionnaire (1–5) that measured five main variables: employee competence (X_1), hospital management information system (X_2), internal supervision (X_3), work discipline (Z), and administrative performance (Y). An average score above 4 indicates that respondents generally assess that all aspects of hospital management, including competence, supervision, and work discipline, have been running well.

Test Assumptions Classic

Before conducting the hypothesis test, the data were tested for normality, multicollinearity, and heteroscedasticity. The Kolmogorov–Smirnov test results showed an Asymp. Sig. value of 0.143 (> 0.05), indicating that the data were normally distributed. The multicollinearity test shows a VIF value < 10 and Tolerance > 0.1 , so there are no symptoms of multicollinearity. The Glejser test also shows that all variables have a significance value > 0.05 , indicating that there is no heteroscedasticity.

RESULT

Analysis model track used For know influence direct And No direct intervariable .

Table 2.

Results of the Direct Effect Test

Relationship between variables	Path Coefficient (β)	t-value	Sig.	Information
Competence $\rightarrow$ Work Discipline	0.321	3,998	0.000	Significant
ICHA $\rightarrow$ Work Discipline	0.276	3.121	0.002	Significant
Internal Supervision $\rightarrow$ Work Discipline	0.284	3,237	0.001	Significant
Competence $\rightarrow$ Administrative Performance	0.225	2,861	0.005	Significant
ICHA $\rightarrow$ Administrative Performance	0.193	2,456	0.015	Significant
Internal Supervision $\rightarrow$ Administrative Performance	0.176	2.012	0.046	Significant
Work Discipline $\rightarrow$ Administrative Performance	0.349	4,509	0.000	Significant

The results above show that all independent variables have a positive and significant influence on both work discipline and administrative performance.

Influence No Directly (Through Discipline Work)

The results of the mediation effect calculations show that: Employee competence has an indirect effect of 0.112 ($p < 0.05$) on administrative performance through work discipline. ICHA has an indirect effect of 0.097 ($p < 0.05$) through work discipline. Internal supervision also has an indirect effect of 0.099 ($p < 0.05$) on administrative performance through work discipline. Thus, work discipline is proven to act as a partial mediating variable between the three independent variables and administrative performance.

DISCUSSION

The study's results indicate that employee competency significantly impacts administrative performance, both directly and through work discipline. This aligns with the findings of Putra et al. (2022) and Rizki & Lestari (2021), who explain that high competency strengthens administrative responsibility and efficiency. Competencies, which encompass technical knowledge, communication skills, and work ethics, enable employees to better implement hospital SOPs in a timely and accurate manner. Furthermore, the Hospital Management Information System (ICHA) has also been shown to positively impact administrative performance. ICHA implementation helps accelerate service flow, reduce data duplication, and increase transparency. These findings align with research by Sari & Nugroho (2023), which found that information system integration improves reporting effectiveness and human resource efficiency in healthcare facilities.

Internal supervision contributes significantly to improving work discipline. When the supervision system is effective, employees are more motivated to comply with organizational rules and avoid

administrative errors. These results are supported by Hakim & Widodo (2022), who explain that consistent supervision creates an accountable work culture and strengthens employee morale. Furthermore, work discipline has been shown to be an important mediating variable. Discipline strengthens the influence of competence, ICHA, and supervision on administrative performance. Disciplined employees tend to have high attendance rates, strong sense of responsibility, and timely completion of administrative reports. This is in line with Suryani et al. (2023), who found that discipline is a key factor in maintaining administrative performance in hospitals based on a quality management system. These findings provide practical implications: improving HR competence and optimizing ICHA must be balanced with a continuous internal supervision system to strengthen work discipline. The combination of these three aspects can increase the effectiveness and accountability of hospital administrative performance.

This study has several limitations that require attention and should serve as a basis for further research. First, the study used a cross-sectional design, meaning the data obtained only describe conditions at a specific point in time and cannot fully explain the causal relationships between variables. Therefore, future research is recommended to employ a longitudinal design to monitor changes in employee behavior and the effectiveness of hospital management information system implementation over time. Second, the data in this study were collected through a self-report questionnaire, which may introduce subjective bias due to respondents' tendency to provide answers that are considered safest or most consistent with expectations. Further research is expected to combine quantitative and qualitative methods, such as in-depth interviews or direct observation, to obtain more objective and comprehensive data. Third, the scope of this study is limited to Muhammadiyah Hospital Palembang, which has organizational characteristics based on Islamic values. Therefore, the results cannot be generalized to other hospitals with different management systems and work cultures. Future research is expected to involve several hospitals with different backgrounds, including government, private, and Islamic hospitals, to achieve more representative and comparative results. Fourth, this research model only focuses on three main variables, namely employee competence, hospital management information systems, and internal supervision with work discipline mediation, without considering other variables such as organizational culture, leadership, or work motivation which can also influence administrative performance.

Future researchers can add these variables to enrich the conceptual model and increase the explanatory power of the relationships between variables. Furthermore, the statistical analysis used in this study was limited to path analysis with SEM-PLS, which is effective for testing relationships between constructs but is unable to explore causal mechanisms in depth. Further research is recommended using advanced analytical approaches such as multigroup analysis or latent growth modeling to assess moderating factors, intergroup differences, and more dynamic model validation. Considering these limitations, future research is expected to develop broader designs, use more diverse instruments, and consider contextual factors and organizational values.

CONCLUSION

This study shows that employee competence, hospital management information systems (ICHA), and internal supervision have a positive and significant effect on administrative performance, both directly and indirectly through work discipline. Employees with good competence, supported by optimal use of ICHA and effective internal supervision, tend to demonstrate higher work discipline, thereby improving administrative performance. Work discipline is proven to be a mediating variable that strengthens the relationship between the three variables and administrative performance. Thus, the research objective to determine the effect of employee competence, ICHA, and internal supervision on administrative performance through work discipline at Muhammadiyah Hospital Palembang has been empirically fulfilled.

REFERENCES

- Anggraeni, D., Astuti, S. R., & Istiqamah, N. F. (2025). The influence of teamwork and work discipline on employee performance: A quantitative study at RSIA Ananda Makassar. *Public Health Science & Research*, 5(2), 296–304. <https://doi.org/10.47650/pjphsr.v5i2.1874>
- Kasim, F., Sari Maharani, P., & Diaz, A. S. (2025). Analysis of administrative hospital human resource competence and its influence on administrative performance at Grandmed Hospital Lubuk Pakam. *Jurnal Kesmas dan Gizi (JKG)*, 8(1), 657–664. <https://doi.org/10.35451/p484vd27>
- Laia, G. P. (n.d.). Overview of a hospital management information system (SIMRS) for improving health service quality in Indonesia. *Jurnal Inovasi Riset Ilmu*.
- Nor, S. R., Permata Indah, D., & Heniwati, E. (2024). Internal control analysis of asset management system at Hospital of Tanjungpura University. *Jurnal Ilmiah Manajemen Kesatuan*, 12(6), 2141–2148. <https://doi.org/10.37641/jimkes.v11iS1.2881>
- Paramitha, N. L. M. A., Indiani, N. L. P., & Suyatna P. N. (2024). The role of job satisfaction as a mediator of work discipline and organizational climate on employee performance. *International Journal of Environment, Social Sciences and Sustainability*, 5(4), <https://doi.org/10.38142/ijesss.v5i4.1096>
- Putra, A. P. (2025). The influence of hospital management information systems and organizational culture on employee performance. *Public Journal of Public Health Services & Research*, 5(1), xx–xx. <https://doi.org/10.47650/pjphsr.v5i1.1707>
- Putra, B. P., & Haryadi, R. N. (2022). The influence of communication and work discipline on employee performance at PT. Mackessen Indonesia. *Journal of Major Economics*, 1(3), 154–159.
- Putu, R., & Wiayaya, S. (2020). Influence of leadership, work discipline, and work environment on employee performance in hospitals. *The Indonesian Journal of Public Health*, 17(2), 273–284. <https://doi.org/10.20473/ijph.v17i2.2022.273-284>
- Qoyimah, D. L., & Yuhelmis, Y. (2024). The effect of work discipline, work motivation and organizational culture on employee performance improvement strategies at Bogor City Hospital. *International Journal of Social and Management Studies*, 5(6), 14–23. <https://doi.org/10.5555/ijosmas.v5i6.449>
- Rachman, D. A., Astuti, S. R., & Istiqamah, N. F. (2025). The influence of teamwork and work discipline on employee performance: A quantitative study at RSIA Ananda Makassar. *Public Health Science & Research*, 5(2), 296–304. <https://doi.org/10.47650/pjphsr.v5i2.1874>
- Salombe, A., Rantererung, C. L., & Lambe, K. H. P. (2025). The influence of health information system and employee competency on the quality of public services at the Health, Population Control and Family Planning Office of Central Papua Province. *Journal of Indonesian Innovation (JII)*, 4(3), xx–xx. <https://doi.org/10.58344/jii.v4i3.6345>
- Sapitri, R., Sukarya, Y., & Priyono, A. (2025). The effect of competency-based training and the work environment on the performance of non-medical administrative employees at a private hospital in Tangerang Regency. *Journal of Industrial Engineering & Management Research (JIEMAR)*, 6(5), 21–29. <https://doi.org/10.7777/jiemar.v6i5.607>
- Sarah, H., Sjahri, E., & Patisina. (2023). The influence of work culture and work discipline on employee performance at Advent Hospital Medan. *International Journal of Science, Technology & Management*, 4(5), 1340–1350. <https://doi.org/10.46729/ijstm.v4i5.926>
- Sari, D. P., & Harto, P. (2022). The role of digital literacy in moderating the relationship between digital accounting use and information quality in service sector SMEs. *Asian Journal of Accounting Research*, 7(1), 63–78. (meskipun sektor SME, relevan isu digital – bisa digunakan)
- Sugiarto, H., & Zainal, V. R. (2025). The effect of competency and remuneration on healthcare workers performance mediated by work discipline at RS Pusat Pertamina. *International Journal of Social and Management Studies*, 6(3), 130–147. <https://doi.org/10.5555/ijosmas.v6i3.496>