The Impact of SIMEDHI on the Performance and Competency of Industrial Relations Mediators through Data Accuracy as Mediation

Hasdin Nadin*, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

Universitas Trilogi
Email : hasdinnadin48@gmail.com, zainulkisman@trilogi.ac.id,
a_bastaman@trilogi.ac.id, rizka.ramayanti@trilogi.ac.id

Abstract

This study aims to analyze the effect of implementing the Industrial Relations Mediator Information System (SIMEDHI) on performance assessment and competency improvement of Industrial Relations Mediators, with data accuracy as a mediating variable. Using a quantitative approach and survey method, data were collected through questionnaires distributed to 205 mediators across various provinces in Indonesia. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results show that SIMEDHI significantly affects data accuracy. Furthermore, data accuracy acts as a significant partial mediator between SIMEDHI and both mediator performance and competency. These findings highlight that accurate information systems strengthen decision-making in performance evaluation and support data-driven competency development programs.

Keywords: *SIMEDHI, Industrial Relations Mediator, Performance Assessment, Competency Improvement, Data Accuracy*

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh penerapan Sistem Informasi Mediator Hubungan Industrial (SIMEDHI) terhadap penilaian kinerja dan peningkatan kompetensi Mediator Hubungan Industrial, dengan akurasi data sebagai variabel mediasi. Dengan pendekatan kuantitatif dan metode survei, data dikumpulkan melalui kuesioner yang disebarkan kepada 205 mediator di berbagai provinsi di Indonesia. Analisis data dilakukan menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa SIMEDHI berpengaruh signifikan terhadap akurasi data. Lebih lanjut, akurasi data berperan sebagai mediator parsial yang signifikan antara SIMEDHI dan kinerja serta kompetensi mediator. Temuan ini menunjukkan bahwa sistem informasi yang akurat memperkuat pengambilan keputusan dalam evaluasi kinerja dan mendukung program pengembangan kompetensi berbasis data.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

Kata Kunci: *SIMEDHI, Mediator Hubungan Industrial, Penilaian Kinerja, Peningkatan Kompetensi, Akurasi Data*

Introduction

a. Background

In the era of digital transformation, industrial relations management in Indonesia requires efficiency, transparency, and accountability. Industrial Relations Mediators (IRM) are central figures in resolving disputes between workers and employers, yet their performance is often hampered by limited data accuracy, subjective evaluations, and uneven competencies.

To overcome these challenges, the Ministry of Manpower developed the Industrial Relations Mediator Information System (SIMEDHI), designed to document mediation processes, mediator profiles, and performance outcomes systematically. With SIMEDHI, it is expected that data accuracy can be ensured, competency gaps can be identified, and performance evaluation becomes more objective.

However, despite its potential, the impact of SIMEDHI on improving mediator performance and competency remains underexplored. Thus, this study evaluates how SIMEDHI influences performance and competency improvement, with data accuracy acting as a mediating variable

b. Research Questions

Based on the research background, the study addresses the following questions:

1. Does SIMEDHI significantly influence data accuracy?
2. Does SIMEDHI affect mediator performance assessment?
3. Does SIMEDHI affect competency improvement of mediators?
4. Does data accuracy influence mediator performance assessment?
5. Does data accuracy influence competency improvement of mediators?
6. Does data accuracy mediate the relationship between SIMEDHI and performance assessment?
7. Does data accuracy mediate the relationship between SIMEDHI and competency improvement?

Literature Riview

1. Grand Theories

The Information Systems Success Model (DeLone & McLean, 2003) highlights that information system success is influenced by system quality, information quality, system use, user satisfaction, individual impact, and organizational impact. In SIMEDHI, the quality of both the system and the data directly determines how effectively it enhances mediators' performance and

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

competency.

The Data Quality Theory (Juran, 1998; Wang & Strong, 1996) emphasizes accuracy as the most critical dimension of information quality. Accurate, consistent, timely, and valid data ensure reliable decision-making and strengthen the foundation for competency-based development programs.

The Competency-Based Human Resource Theory (Spencer & Spencer, 1993) views competency as a set of knowledge, skills, and attitudes that are causally linked to superior performance. This theory is particularly relevant since SIMEDHI provides data to identify training needs and monitor the development of mediator competencies.

2. Concept of SIMEDHI

The Industrial Relations Mediator Information System (SIMEDHI) was established by the Indonesian Ministry of Manpower to facilitate the work of mediators by providing real-time, integrated, and accurate data management. It systematically records mediation activities, performance outcomes, and mediator profiles. By doing so, it increases transparency and accountability in industrial relations dispute resolution and reduces subjective bias in performance evaluation.

3. Concept of Data Accuracy

Data accuracy refers to the extent to which data correctly represent real-world conditions without distortion. Wang and Strong (1996) define accuracy through four dimensions: correctness of value, consistency across sources, timeliness of updates, and validity of information. Within SIMEDHI, accurate records of mediator biodata, training history, and mediation outcomes ensure that decisions regarding performance evaluation and competency development are based on trustworthy information.

4. Concept of Performance Assessment

Performance assessment is a structured evaluation process that measures how well employees achieve predefined targets. According to Armstrong (2020) and Wibowo (2022), performance indicators include the timeliness of case resolution, stakeholder satisfaction, the number of cases resolved, effectiveness of resolution strategies, and professionalism in conduct. SIMEDHI plays a critical role by providing a digital platform to capture and evaluate these performance indicators objectively.

5. Concept of Competency Improvement

Competency improvement refers to the enhancement of mediators' technical expertise, knowledge of labor law, communication skills, and professional attitudes. Spencer and Spencer (1993) describe competency as

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

observable and measurable attributes that can be developed over time. Through SIMEDHI, data on training participation, case handling, and developmental progress can be used to identify competency gaps and guide targeted improvement programs.

6.   Prior Research

Ali and Miller (2017) demonstrated that accurate and timely data serve as a mediating factor between system functionality and organizational performance outcomes in digital governance. Gil-García and Helbig (2006) found that digital government information systems increase transparency, accountability, and efficiency. Heeks (2006) stressed that public information system success depends largely on user readiness and data quality.

In Indonesia, studies on digital systems in the public sector have highlighted improvements in efficiency and accountability, yet quantitative investigations specifically assessing SIMEDHI are scarce. This research fills that empirical gap by testing the mediating role of data accuracy in linking SIMEDHI with mediator performance and competency.

7.   Conceptual Framework and Hypotheses

Based on the grand theories, literature review, and prior research, this study develops a conceptual framework that positions data accuracy as a mediating variable between the implementation of SIMEDHI and two outcome variables: mediator performance assessment and mediator competency improvement. The model reflects the assumption that the use of an information system alone may not directly enhance performance and competency unless the accuracy of the data it produces can be ensured. Accurate data serve as the foundation for transparent evaluation and targeted competency development.

The framework illustrates the following relationships:
1.   SIMEDHI is expected to have a significant influence on data accuracy.
2.   Data accuracy is hypothesized to positively affect both mediator performance and competency.
3.   SIMEDHI may directly influence performance and competency, but its effect is strengthened when mediated by data accuracy.

From this conceptualization, the following hypotheses are proposed:
*   H1: SIMEDHI has a significant effect on data accuracy.
*   H2: SIMEDHI has a significant effect on mediator performance assessment.
*   H3: SIMEDHI has a significant effect on mediator competency improvement.
*   H4: Data accuracy has a significant effect on mediator performance assessment.
*   H5: Data accuracy has a significant effect on mediator competency improvement.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

- H6: Data accuracy mediates the relationship between SIMEDHI and mediator performance assessment.
- H7: Data accuracy mediates the relationship between SIMEDHI and mediator competency improvement.

This framework and its hypotheses provide the basis for the empirical testing conducted in this study using Partial Least Squares Structural Equation Modeling (PLS-SEM).

Research Methods

This study employed a quantitative causal research design to examine the effect of SIMEDHI on mediator performance and competency through data accuracy as a mediating variable. The population comprised approximately 1,000 Industrial Relations Mediators across Indonesia, with a sample of 205 respondents obtained using a survey method. Data were collected through a structured questionnaire using a 5-point Likert scale to measure perceptions of SIMEDHI implementation, data accuracy, performance assessment, and competency improvement. Instrument validity and reliability were confirmed through outer model testing, including factor loadings, AVE, Composite Reliability, Cronbach's Alpha, and discriminant validity checks.

The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. This method was chosen for its robustness in handling relatively small sample sizes, complex models, and mediation testing. Analysis included both measurement model evaluation (validity and reliability) and structural model evaluation (R^2, f^2, Q^2, and path coefficients) to test the hypotheses.

Result and Discussion

1. Result of Data Analysis

The evaluation of the measurement model (outer model) showed that all indicators fulfilled the required validity and reliability criteria. The loading factor values exceeded 0.70, the Average Variance Extracted (AVE) was greater than 0.50, Composite Reliability (CR) exceeded 0.70, and Cronbach's Alpha was also above 0.70. Discriminant validity was confirmed through cross-loading and the Fornell-Larcker criterion, while the HTMT ratio was below the cut-off value of 0.90. These results indicate that the measurement instrument was valid and reliable.

The structural model (inner model) analysis produced the following findings:

- Effect of SIMEDHI (X) on Data Accuracy (M): Path coefficient $\beta = 0.652$, t-statistic 12.341, $p < 0.001$. The effect is positive and statistically significant, indicating that SIMEDHI strongly improves the accuracy of mediator data in the system.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

- Effect of SIMEDHI (X) on Mediator Performance (Y1): Path coefficient β = 0.215, t-statistic 2.864, p = 0.004. SIMEDHI has a significant direct effect on performance assessment, although weaker compared to its indirect effect via data accuracy.
- Effect of SIMEDHI (X) on Mediator Competency (Y2): Path coefficient β = 0.198, t-statistic 2.547, p = 0.011. SIMEDHI positively affects competency improvement, but its influence becomes more substantial when mediated by data accuracy.
- Effect of Data Accuracy (M) on Mediator Performance (Y1): Path coefficient β = 0.471, t-statistic 7.982, p < 0.001. Data accuracy significantly strengthens objective performance assessment of mediators.
- Effect of Data Accuracy (M) on Mediator Competency (Y2): Path coefficient β = 0.522, t-statistic 9.104, p < 0.001. Accurate data contributes to more targeted and effective competency development.
- Mediating Role of Data Accuracy (M): The mediation analysis confirmed partial mediation:
1. SIMEDHI → Data Accuracy → Performance (indirect β = 0.307, p < 0.001).
2. SIMEDHI → Data Accuracy → Competency (indirect β = 0.340, p < 0.001).
→ Although SIMEDHI has direct effects on performance and competency, the indirect effects through data accuracy are stronger, underscoring its role as a critical mediator.
- Model Fit Indicators: The structural model demonstrated good explanatory power, with R^2 = 0.612 for Performance and R^2 = 0.647 for Competency. Effect size (f^2) values indicated moderate to strong contributions of SIMEDHI to data accuracy and of data accuracy to the outcome variables.

2. Discussion

The discussion of the findings is as follows:

a. Effect of SIMEDHI on Data Accuracy

The path coefficient analysis revealed a strong positive effect of SIMEDHI on data accuracy (β = 0.652, p < 0.001). This finding aligns with DeLone & McLean's (2003) Information Systems Success Model, which emphasizes the importance of system quality in ensuring the accuracy of information. The significant path coefficient suggests that the implementation of SIMEDHI directly improves the accuracy of mediator data, which is essential for effective decision-making and performance assessment in industrial relations.

b. Effect of SIMEDHI on Mediator Performance

SIMEDHI showed a direct effect on mediator performance (β = 0.215, p = 0.004), although the effect was weaker than its indirect influence through data accuracy. This result is consistent with Juran's (1998) perspective, which posits that data accuracy serves as a foundation for evaluating organizational performance. The positive path coefficient confirms that when data is accurate,

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

performance evaluations become more objective and reliable.

c. Effect of SIMEDHI on Mediator Competency

SIMEDHI had a positive effect on mediator competency improvement (β = 0.198, p = 0.011), with a stronger effect when mediated by data accuracy. This supports Spencer & Spencer's (1993) theory of competency, which suggests that accurate and reliable data are crucial for identifying training needs and measuring competency development. SIMEDHI's role in facilitating competency development is evident in how it allows for continuous tracking of mediator progress and training participation.

d. Data Accuracy's Influence on Mediator Performance

Data accuracy positively affected mediator performance (β = 0.471, p < 0.001), further highlighting the importance of accurate and up-to-date data in performance assessment. Wibowo (2022) emphasizes that performance evaluations based on accurate data lead to more objective and transparent assessments. This study supports the notion that performance evaluations are more reliable when data reflect the true performance of mediators, reducing the likelihood of bias or errors in decision-making.

e. Data Accuracy's Influence on Mediator Competency

Data accuracy also had a significant effect on competency improvement (β = 0.522, p < 0.001). Spencer & Spencer (1993) argue that accurate data is essential for competency development as it helps identify areas of improvement and tracks training outcomes. In this study, SIMEDHI provides an effective mechanism for tracking mediator competencies, suggesting that accurate data not only supports performance evaluation but also guides targeted professional development programs.

f. The Mediating Role of Data Accuracy

Data accuracy served as a partial mediator in the relationship between SIMEDHI and both performance (indirect β = 0.307, p < 0.001) and competency (indirect β = 0.340, p < 0.001). This finding supports Ali & Miller (2017), who found that data accuracy mediates the relationship between system functionality and organizational performance. The strong mediation effect indicates that SIMEDHI's benefits are maximized when data accuracy is ensured, making it clear that the system's success relies heavily on the quality of the data it produces.

g. Model Fit Indicators

The model fit indicators (R^2 = 0.612 for performance, R^2 = 0.647 for competency) indicate that SIMEDHI and data accuracy explain a substantial proportion of the variance in mediator performance and competency. These values are consistent with Heeks (2006), who suggested that high-quality data and effective information systems lead to better organizational outcomes. The f^2 values confirmed that SIMEDHI and data accuracy are key contributors to performance and competency improvements.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

Conclusion and Recommendation

1. **Conclusion**

   Based on the analysis of the data, the study concludes that:

a. The implementation of the Industrial Relations Mediator Information System (SIMEDHI) has a positive and significant impact on the performance assessment of industrial relations mediators.

b. The implementation of the Industrial Relations Mediator Information System (SIMEDHI) has a positive and significant impact on the improvement of the competence of industrial relations mediators.

c. The implementation of the Industrial Relations Mediator Information System (SIMEDHI) has a positive and significant impact on the accuracy of industrial relations mediator data as a mediating variable.

d. The accuracy of industrial relations mediator data has a positive and significant impact on the performance assessment of industrial relations mediators.

e. The accuracy of industrial relations mediator data has a positive and significant impact on the improvement of the competence of industrial relations mediators.

f. The accuracy of data does not significantly mediate the relationship between the implementation of SIMEDHI and the performance assessment of industrial relations mediators.

g. The accuracy of data mediates the relationship between the implementation of SIMEDHI and the improvement of the competence of industrial relations mediators.

2. **Recommendations**

1). **Practical Recommendations**

a. Optimization of SIMEDHI Implementation

   The Ministry of Manpower needs to ensure that the use of SIMEDHI is consistently applied across all regions. The input of mediator data should be mandatory and audited periodically to maintain data accuracy and currency.

b. Improvement of Mediator Digital Literacy

   It is recommended that regular training on the use of SIMEDHI be provided to mediators, particularly regarding data entry, the utilization of analysis features, and system-based report preparation. This is important so that mediators do not solely rely on administrators/operators.

c. Integration of Data-Based Performance Evaluation

   SIMEDHI needs to be developed with more comprehensive features, including qualitative indicators (such as satisfaction of the parties, mediation quality), in addition to quantitative indicators (such as the number of cases, resolution speed).

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

d. Development of Feedback Systems

An electronic survey mechanism or direct feedback feature from workers/employers after the mediation process is needed. This will allow for a more objective evaluation of mediator performance, reflecting the satisfaction of the involved parties.

e. Supporting Policies and Regulations

The evaluation results of SIMEDHI should be used as a basis for mediator career development, including promotions, awards, and training recommendations. This way, the information system will not only serve administrative functions but also play a strategic role in functional human resource management.

2). Practical Recommendations

a. Development of Conceptual Models

Future research could integrate other variables such as user satisfaction, management support, and organizational culture to enrich the model of SIMEDHI's influence on mediator performance.

b. Longitudinal Approach

Further studies should use a longitudinal approach to assess the long-term impact of SIMEDHI implementation on the improvement of competencies and the quality of mediation, rather than just focusing on the short-term.

c. Expansion of Research Objects

This study could be expanded to the context of industrial relations in other countries or different public sectors to assess the generalizability of the results, thus strengthening its academic contribution.

d. Integration of Information Systems and HR Theories

Future researchers are advised to examine the implementation of SIMEDHI by integrating the information systems success theory (DeLone & McLean) and human resource competence theory, in order to build a more comprehensive and applicable conceptual framework.

Reference

Abuhantash, A., & Brint, G. (2023). The impact of human resource information systems on organizational performance: A systematic literature review. *European Journal of Business Management Research, 8*(2), 56–72. https://www.researchgate.net/publication/371408018

Armstrong, M. (2020). *Armstrong's handbook of performance management: An evidence-based guide to delivering high performance*. Kogan Page Publishers.

Bernardin, H. J., & Russell, J. E. A. (2012). *Human resource management: An experiential approach*. McGraw-Hill.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research, 3*(1), 60–95.

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems, 19*(4), 9–30. https://www.jmis-web.org/articles/271

Gil-García, J. R., & Helbig, N. (2006). Exploring the success of digital government initiatives in the public sector. *Government Information Quarterly, 23*(3), 547–570.

Gomes, F. C. (2003). *Manajemen sumber daya manusia*. Andi Offset.

Heeks, R. (2006). *Implementing and managing eGovernment: An international text*. SAGE Publications.

Juran, J. M. (1998). *Juran's quality handbook*. McGraw-Hill.

Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels*. Berrett-Koehler Publishers.

Laudon, K. C., & Laudon, J. P. (2018). *Management information systems: Managing the digital firm* (15th ed.). Pearson.

Madon, S. (1993). Computer-based information systems for development planning: Managing human resources. *European Journal of Information Systems*. https://www.tandfonline.com/doi/abs/10.1057/ejis.1993.6

Mangkunegara, A. A. A. P. (2015). *Manajemen sumber daya manusia perusahaan*. Remaja Rosdakarya.

O'Brien, J. A., & Marakas, G. M. (2011). *Management information systems* (10th ed.). McGraw-Hill/Irwin.

Robbins, S. P. (2010). *Organizational behavior*. Pearson Education.

Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. John Wiley & Sons.

Stair, R., & Reynolds, G. (2016). *Principles of information systems* (12th ed.). Cengage Learning.

Wang, R. Y., & Strong, D. M. (1996). Beyond accuracy: What data quality means to data consumers. *Journal of Management Information Systems, 12*(4), 5–34. https://web.mit.edu/tdqm/www/tdqmpub/beyondaccuracy_files/beyondaccuracy.html

Wibowo. (2022). *Manajemen kinerja* (Edisi Revisi). Rajawali Pers.

Yang, Y., Stafford, T. F., & Gillenson, M. (2010). Satisfaction with employee relationship management systems: The impact of usefulness on systems quality perceptions. *European Journal of Information Systems*.

The Impact of SIMEDHI on the Performance and Competency of Industrial Relations
Mediators through Data Accuracy as Mediation
Hasdin Nadin, Zainul Kisman, Aam Bastaman, Rizka Ramayanti

https://www.tandfonline.com/doi/full/10.1057/ejis.2010.69

Yona, F., Rachman, A., & Prasetyo, R. (2024). The impact of HRMIS usage on employee performance: Evidence from SEM-PLS analysis in Indonesia. *QEMS Journal,* *3*(2), 45–60. https://qemsjournal.org/index.php/qems/article/view/2716

Zheng, D., Chen, J., Huang, L., & Zhang, C. (2013). E-government adoption in public administration organizations: Integrating institutional theory perspective and resource-based view. *European Journal of Information Systems*. https://www.tandfonline.com/doi/full/10.1057/ejis.2012.28

Dasar Hukum dan Regulasi

Republik Indonesia. (2004). *Undang-Undang Nomor 2 Tahun 2004 tentang Penyelesaian Perselisihan Hubungan Industrial*.

Republik Indonesia. (2014). *Undang-Undang Nomor 23 Tahun 2014 tentang Pemerintahan Daerah*.

Republik Indonesia. (2014). *Peraturan Menteri Tenaga Kerja dan Transmigrasi Nomor 17 Tahun 2014 tentang Pengangkatan dan Pemberhentian Mediator serta Tata Kerja Mediasi*.

Republik Indonesia. (2016). *Peraturan Menteri Ketenagakerjaan Nomor 33 Tahun 2016 tentang Tata Cara Pengangkatan, Pemberhentian, dan Evaluasi Jabatan Fungsional Mediator Hubungan Industrial*.

Republik Indonesia. (2019). *Peraturan Pemerintah Nomor 30 Tahun 2019 tentang Penilaian Kinerja Pegawai Negeri Sipil*.