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Multilevel Effects of Competence, Work Motivation, Clinical Leadership, and Management Support on Human Resource Service Capability within Corporate Clinic Networks

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Abstract: The rapid growth of corporate clinic networks requires human resources (HR) to be well-prepared to deliver high-quality, professional, and patient-centered services. IHC Clinics have experienced significant increases in service volume, network expansion, and patient visits. These developments have created a need to strengthen HR service capabilities to ensure consistent service quality across all clinics. This study aims to analyze the influence of HR competency, work motivation, clinic leadership, and management support on HR service capability within the IHC clinic network. A quantitative explanatory research design was employed. Data were collected through a survey involving 293 respondents from 33 clinics. Hierarchical Linear Modeling (HLM) was used to examine the simultaneous effects of individual-level and organizational-level factors on HR service capability. The findings indicate that HR competency, work motivation, clinic leadership, and management support have significant positive effects on HR service capability. Among these variables, work motivation exerts the strongest influence. Furthermore, the results reveal that individual-level factors contribute more substantially than organizational-level factors in explaining variations in HR service capability across clinics. These findings suggest that strengthening HR service capability requires competency development, enhanced work motivation, effective clinic leadership, and strong management support.

Keywords: Human Resource (HR) Service Capability, HR Competency, Work Motivation, Clinical Leadership, Management Support, Hierarchical Linear Modeling (HLM).

INTRODUCTION

The increasingly dynamic healthcare business environment requires healthcare service organizations not only to focus on expanding service capacity but also to ensure that they possess human resources capable of delivering services professionally, safely, effectively, and sustainably. In the context of the modern healthcare industry, organizational success is no longer determined solely by the availability of facilities, technology, or financial growth, but

also by the capability of human resources to provide services in accordance with quality standards, adapt to change, and support the achievement of the organization's strategic objectives (Mousa et al., 2024; Long et al., 2021). Therefore, human resource service capability has become a key factor determining the success and sustainability of healthcare service organizations.

IHC Clinics, as part of PERTAMEDIKA IHC, have demonstrated remarkable organizational growth over the past several years. Company data indicate that the number of clinics increased by 133% over the last six years, with service locations expanding from 21 sites in 2020 to 49 sites in 2026. During the same period, the service portfolio grew from 10 to 39 service categories, including primary clinics, specialist clinics, medical check-up services, occupational health clinics (OHC), wellness centers, health risk assessments, environmental sanitation services, and daycare centers. Furthermore, patient visits increased from 124,377 in 2021 to 385,585 in 2025 and are projected to reach 399,696 in 2026. This growth has been accompanied by a substantial increase in company revenue. Such conditions require the organization to ensure that business expansion is consistently supported by enhanced human resource service capability across the entire clinic network. This challenge aligns with the findings of Kuhlmann et al. (2024), who argue that healthcare service organizations experiencing growth must strengthen health workforce governance to maintain service quality, healthcare workforce productivity, and the sustainability of service delivery systems. According to their study, organizational capacity expansion without corresponding improvements in workforce capability may create an imbalance between service demands and the readiness of the human resources required to support them. Consequently, strengthening human resource service capability has become a strategic issue inseparable from the growth of healthcare organizations.

Such rapid organizational growth has also increased the complexity of human resource management (Spanos et al., 2024). IHC Clinics currently manage 508 active employees, consisting of physicians, nurses, allied health professionals, and non-medical staff distributed across various clinic types and service locations. This condition indicates that the organization faces not only business expansion challenges but also challenges related to maintaining workforce quality consistency, competency sustainability, succession readiness, and the effectiveness of human resource management systems throughout the clinic network.

From the perspective of the Resource-Based View (RBV), human resources constitute a strategic asset capable of generating sustainable competitive advantage when managed effectively (Barney, 1991; Gerhart & Feng, 2021). Therefore, organizations must ensure that rapid business growth is accompanied by the strengthening of human resource service capability. In this study, human resource service capability is defined as the ability of employees to deliver services accurately, safely, courteously, professionally, and in a well-documented manner, in compliance with quality standards, while effectively collaborating within teams and contributing to service problem-solving. This concept is consistent with the workforce capacity-building approach proposed by Frost et al. (2025), which emphasizes that healthcare workforce capability is determined not only by individual competencies but also by the organization’s ability to create a work environment that supports learning, adaptation, collaboration, and continuous quality improvement. Therefore, human resource service capability is viewed as a strategic outcome reflecting organizational readiness to address increasing healthcare service complexity.

Numerous studies have demonstrated that healthcare workforce capability and performance are influenced by both individual and organizational factors. Human resource competency serves as the primary foundation determining an individual’s ability to perform tasks effectively. Wongso et al. (2024) found that healthcare workforce competency significantly influences service quality and nursing documentation performance. These

findings are reinforced by Aryee et al. (2024), who demonstrated that continuous capacity-building programs enhance healthcare workforce competency, strengthen adaptability to change, and improve the quality of services delivered to patients. Thus, competency functions not only as a technical capability but also as a strategic capacity that supports the success of healthcare organizations.

At the organizational level, clinical leadership and management support are also critical factors in improving service quality. Xue et al. (2025) found that effective clinical leadership enhances service quality by increasing healthcare workers' work engagement. Similarly, Opoku et al. (2024) demonstrated that perceived organizational support positively influences both work engagement and workforce performance. Management support in this study is grounded in Social Exchange Theory (Blau, 1964), which explains that the relationship between organizations and employees is based on reciprocal social exchange. Management support, through the provision of resources, technology, training, work systems, and organizational policies, plays a crucial role in creating a work environment that fosters service quality improvement. Beyond general organizational support, advancements in healthcare technology increasingly require management to provide enabling work systems. Jeilani and Hussein (2025) found that the adoption of digital health technologies, supported by training, leadership, and organizational readiness, enhances healthcare workforce productivity while reducing operational workloads. These findings suggest that management support extends beyond resource provision to include the organization's capability to facilitate digital transformation and improve workforce effectiveness.

Based on the literature review, four research gaps remain unresolved. First, previous studies have primarily focused on performance or service quality variables, while research on human resource service capability remains limited. Second, prior studies generally examined competency, motivation, leadership, or organizational support separately, thus failing to explain the relative contribution of each factor. Third, multilevel studies within the context of corporate clinic organizations in Indonesia remain scarce. Fourth, no study has integrated both individual and organizational factors to explain human resource service capability within the IHC Clinic network, which is characterized by complex and geographically dispersed services. Furthermore, most previous studies have focused on hospitals and community health centers, whereas research on human resource service capability within rapidly growing corporate clinic networks featuring multilevel organizational structures remains limited. Therefore, there is a need for research that explains the relative contributions of individual and organizational factors to human resource service capability in the context of corporate clinic organizations. This condition highlights a research gap that requires an approach capable of simultaneously examining the influence of both individual and organizational factors.

This study offers several novel contributions from conceptual, methodological, and contextual perspectives. Conceptually, it employs human resource service capability as the dependent variable, which is considered more relevant in healthcare service organizations than the conventional human resource performance measures commonly used in previous studies. Human resource service capability is conceptualized as the ability of healthcare workers to deliver safe, professional, well-documented services in accordance with quality standards, adapt to change, and contribute to service problem-solving. This approach enables a more comprehensive assessment of human resource contributions to supporting healthcare service quality.

From a research model perspective, this study integrates four primary determinants derived from two levels of analysis: human resource competency and work motivation at the individual level, and clinical leadership and management support at the organizational level. The integration of individual and organizational factors within a single research framework

remains relatively limited in the healthcare human resource management literature, which has traditionally examined these factors separately.

Methodologically, this study employs Hierarchical Linear Modeling (HLM) to identify the simultaneous effects of individual and organizational factors on human resource service capability. HLM enables the analysis of both individual- and organizational-level influences simultaneously (Maas & Hox, 2005). This approach allows for a more accurate analysis of hierarchical data structures, where healthcare workers are nested within clinics possessing different organizational characteristics. Consequently, the study not only examines relationships among variables but also explains the relative contribution of each level to variations in human resource service capability.

From a contextual perspective, this study is conducted within the IHC Clinic network, one of the largest corporate clinic organizations in Indonesia, characterized by multiple locations, diverse service offerings, and multidisciplinary healthcare professionals. This context differs from the majority of previous studies, which focused on hospitals or community health centers, thereby extending the literature on human resource management in corporate clinic organizations, an area that remains relatively underexplored.

Overall, the primary novelty of this study lies in its effort to explain how individual and organizational factors simultaneously shape human resource service capability within a rapidly growing corporate clinic organization, thereby providing an empirical foundation for developing more effective human capital development strategies in the healthcare sector. Research Questions:

1. Does human resource competency significantly influence the human resource service capability of IHC Clinics?
2. Does work motivation significantly influence the human resource service capability of IHC Clinics?
3. Does clinical leadership significantly influence the human resource service capability of IHC Clinics?
4. Does management support significantly influence the human resource service capability of IHC Clinics?
5. Are there significant variations in human resource service capability among clinics within the IHC Clinic network?
6. To what extent do individual-level factors and organizational-level factors contribute to explaining the human resource service capability of IHC Clinics?

METHODS

This study employs a quantitative approach with an explanatory research design to examine the effects of human resource competency and work motivation at the individual level, as well as clinical leadership and management support at the organizational level, on the human resource service capability of IHC Clinics. A quantitative approach was selected to test causal relationships among variables and verify the proposed hypotheses through data analysis using instruments adapted and modified from recent empirical studies relevant to the research context (Creswell & Creswell, 2018).

The study population consisted of all employees of IHC Clinics, totaling 508 individuals distributed across various clinic types and work units. The sampling technique employed was purposive sampling, with respondents required to be active employees of IHC Clinics and to complete the questionnaire in its entirety. Through the data collection process, 293 valid responses were obtained from employees representing 33 clinics and work units, accounting for 57.68% of the study population.

Primary data were collected through an online questionnaire utilizing a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The research instrument was developed based on relevant theories and previous empirical studies.

This study applies Hierarchical Linear Modeling (HLM) because the data exhibit a hierarchical (nested) structure, in which individual employees are grouped within different clinics. The study variables include human resource competency (HRC) and work motivation (WM) at Level 1 (individual level), as well as clinical leadership (CL) and management support (MS) at Level 2 (organizational/group level). The dependent variable is human resource service capability (HRSC).

Table 1. Operationalization of Research Variables

Variable	Operational Definition	Key Indicators	References
HR Competency (HRC)	The ability of healthcare personnel to perform their duties in accordance with professional standards and organizational requirements.	Job knowledge, technical skills, communication, problem-solving, teamwork, compliance with SOPs, adaptability, and self-development.	Wongso et al. (2024); Aryee et al. (2024)
Work Motivation (WM)	The internal drive of individuals to make their best contribution to work performance and service delivery.	Work enthusiasm, commitment, responsibility, initiative, engagement, achievement orientation, and desire for self-improvement.	Karaferis et al. (2022)
Clinical Leadership (CL)	The capability of clinic leaders to direct, guide, and support the achievement of service objectives.	Work direction, communication, coaching, decision-making, role modeling, and staff support.	Xue et al. (2025)
Management Support (MS)	Organizational support in providing resources and systems that facilitate effective service delivery.	Training, technology, work facilities, work systems, organizational policies, rewards, and career development opportunities.	Opoku et al. (2024); Jeilani & Hussein (2025)
HR Service Capability (HRSC)	The ability of healthcare personnel to deliver professional, safe, high-quality, and problem-solving-oriented services.	Service accuracy, professionalism, patient safety, documentation, teamwork, service quality, and problem-solving capability.	Frost et al. (2025); Kuhlmann et al. (2024)

Source: Adapted from Wongso et al. (2024), Karaferis et al. (2022), Opoku et al. (2024), Xue et al. (2025), Jeilani & Hussein (2025), Kuhlmann et al. (2024), and Frost et al. (2025).

Prior to model testing, a reliability analysis was conducted using Cronbach's Alpha, with a minimum acceptable threshold of 0.70 (Hair et al., 2022). Descriptive analysis was employed to summarize and describe the characteristics of the research data.

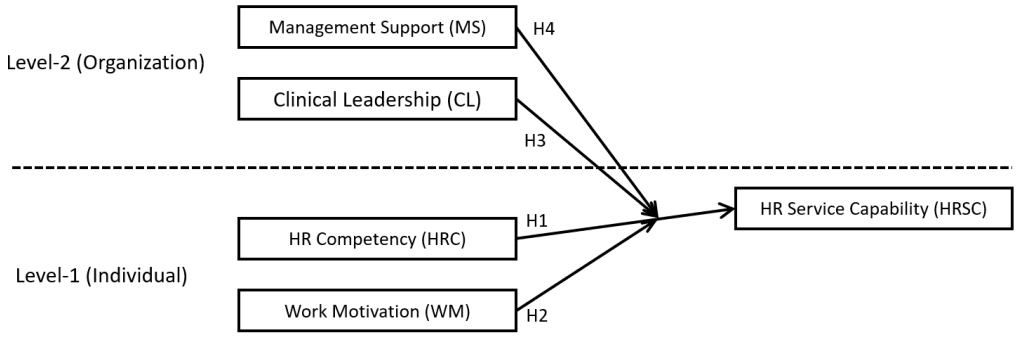
Hypothesis testing was performed using Hierarchical Linear Modeling (HLM) through the Mixed Models–Linear procedure in IBM SPSS Statistics. The analysis was conducted in several stages, beginning with the Null Model to calculate the Intraclass Correlation Coefficient (ICC), followed by the Level-1 Model to examine the effects of human resource competency and work motivation, the Level-2 Model to assess the effects of clinical leadership and management support, and finally the Full Model to evaluate the simultaneous effects of all research variables.

Model fit was assessed using the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), and the −2 Log Likelihood (−2LL) values. The best-fitting model was determined based on the lowest AIC, BIC, and −2LL values.

RESULTS AND DISCUSSION

Characteristics of the Research Model

This study employs a two-level Hierarchical Linear Modeling (HLM) approach to examine the influence of individual-level and organizational-level factors on the human resource service capability of IHC Clinics. The research data were collected from 293 respondents representing 33 clinics and work units, including Primary Clinics, Main Clinics, Occupational Health Units (OHUs), the Head Office, and other organizational units. Due to the hierarchical nature of the data, conventional regression approaches are less appropriate because individuals are nested within different organizational groups. Therefore, HLM was utilized to simultaneously identify the contributions of both individual and organizational factors.



Source: Research Findings

Figure 1. Conceptual Framework of Hierarchical Linear Modeling

Instrument Reliability Testing

Prior to model testing, all research instruments were assessed using Cronbach's Alpha. The results indicated that the variables of Management Support (MS), Clinical Leadership (CL), Work Motivation (WM), Human Resource Competency (HRC), and Human Resource Service Capability (HRSC) achieved Cronbach's Alpha values of 0.938, 0.952, 0.934, 0.891, and 0.963, respectively. These findings demonstrate that all research variables satisfied the reliability criterion, as their Cronbach's Alpha values exceeded the minimum threshold of 0.70 recommended by Hair et al. (2022). Accordingly, the research instruments were considered reliable and consistent in measuring the constructs of human resource competency, work motivation, clinical leadership, management support, and human resource service capability.

Hierarchical Linear Modeling Results

Model Selection

The initial stage of the analysis involved comparing three models: the Null Model, the Level-1 Model, and the Full Model.

Table 2. Model Fit Comparison

Model	AIC	BIC	-2LL
Null Model	282.006	293.047	276.006
Model 1 (HRC + WM)	-57.685	-39.284	-67.685
Model 2 (HRC + WM + CL + MS)	-84.416	-58.655	-98.416

Source: SPSS Mixed Models Output.

Based on Table 2, Model 2, which incorporates human resource competency, work motivation, clinical leadership, and management support, produced the lowest AIC, BIC, and -2LL values. According to Snijders and Bosker (2012), models with lower AIC and BIC values

demonstrate better model fit. Therefore, Model 2 was selected as the best-fitting model for explaining the human resource service capability of IHC Clinics.

Hypothesis Testing Results

Table 3. Hierarchical Linear Modeling (HLM) Results

Hypothesis	Variable	F	Sig	Decision
H1	HR Competency (HRC) → HRSC	29.155	<0.001	Supported
H2	Work Motivation (WM) → HRSC	73.573	<0.001	Supported
H3	Clinical Leadership (CL) → HRSC	5.139	0.024	Supported
H4	Management Support (MS) → HRSC	13.315	<0.001	Supported

Source: SPSS Mixed Models Output.

Effect of Human Resource Competency on Human Resource Service Capability (H1)

The analysis revealed that human resource competency has a significant effect on human resource service capability ($F = 29.155$, $p < 0.001$). This finding indicates that the higher the competency possessed by employees, the greater their ability to provide professional, safe, well-documented services that comply with organizational quality standards. These results support Human Capital Theory, which posits that competency is a key organizational asset for creating value and enhancing service quality (Becker, 1993). The findings are also consistent with Wongso et al. (2024), who reported that healthcare workforce competency positively influences healthcare documentation quality and service delivery. Furthermore, Aryee et al. (2024) demonstrated that capacity-building programs enhance healthcare workforce competency, resulting in improved service quality. Therefore, human resource competency can be viewed as a fundamental pillar in developing human resource service capability within the IHC Clinic network.

Effect of Work Motivation on Human Resource Service Capability (H2)

The results indicate that work motivation has a significant effect on human resource service capability ($F = 73.573$, $p < 0.001$). This was the highest F-value among all variables, indicating that work motivation is the most dominant factor in explaining human resource service capability. The findings suggest that employees with strong work enthusiasm, organizational commitment, and a desire to deliver excellent service tend to exhibit higher levels of service capability. These results are consistent with Karaferis et al. (2022), who found a positive relationship between healthcare worker motivation, work engagement, and service quality. The findings also support the view that high competency alone is insufficient to generate optimal performance without adequate motivation. Practically, these results suggest that IHC Clinics should place greater emphasis on reward systems, career development programs, coaching, mentoring, and initiatives that strengthen workplace culture to enhance employee motivation.

Effect of Clinical Leadership on Human Resource Service Capability (H3)

The analysis showed that clinical leadership significantly influences human resource service capability ($F = 5.139$, $p = 0.024$). This finding indicates that leadership quality at the clinic level contributes to service capability, although its effect is smaller than that of individual-level factors. The result supports the study of Xue et al. (2025), which found that clinical leadership improves healthcare service quality through enhanced work engagement and service culture. Within the context of IHC Clinics, clinic leaders play an essential role in directing staff, providing coaching, facilitating problem-solving, and ensuring the consistent implementation of service standards.

Effect of Management Support on Human Resource Service Capability (H4)

The results demonstrate that management support significantly affects human resource service capability ($F = 13.315$, $p < 0.001$). These findings indicate that the provision of facilities, work systems, training, technology, and organizational support contributes to enhanced human resource service capability. The results are consistent with Opoku et al. (2024), who found that perceived organizational support positively influences medical staff performance. Moreover, Jeilani and Hussein (2025) reported that organizational support for digital health technology adoption improves healthcare workforce productivity and reduces operational workload. These findings reinforce the importance of organizational investment in healthcare support systems.

Variations in Human Resource Service Capability Across Clinics (H5)

The HLM framework assumes that individuals are nested within different clinic groups. The analysis showed that the multilevel model achieved a better fit than models that did not account for organizational-level factors. This finding suggests the existence of variations in human resource service capability across clinics that cannot be explained solely by individual characteristics. In other words, the organizational context in which employees work also influences their service capability. This result is consistent with Widiantoro et al. (2025), who found that organizational characteristics contribute to differences in healthcare workforce performance across service units.

Relative Contributions of Individual and Organizational Factors (H6)

Based on the F-statistics, the variables can be ranked according to their influence on human resource service capability as follows: Work Motivation (73.573), Human Resource Competency (29.155), Management Support (13.315), and Clinical Leadership (5.139). These results indicate that individual-level factors contribute more strongly than organizational-level factors in explaining the human resource service capability of IHC Clinics. The findings suggest that efforts to strengthen service capability will be most effective when focused primarily on enhancing work motivation and competency, while clinical leadership and management support serve as reinforcing organizational factors.

Theoretical Implications

This study extends the healthcare human resource management literature by demonstrating that human resource service capability is influenced not only by individual characteristics but also by the organizational context in which healthcare professionals work. The findings indicate that work motivation and human resource competency are the primary determinants at the individual level, whereas clinical leadership and management support function as reinforcing factors at the organizational level. The results support the Resource-Based View (RBV), which positions human resource competency as a strategic organizational resource; Human Capital Theory, which emphasizes investment in workforce development; and Social Exchange Theory, which explains how organizational support influences employee behavior and contributions. Furthermore, this study enriches the application of Hierarchical Linear Modeling in healthcare human resource management by demonstrating that variations in service capability can be explained simultaneously by individual and organizational factors.

Managerial Implications

The findings reveal that work motivation exerts the strongest influence on human resource service capability among all variables examined. Therefore, corporate clinic organizations should prioritize initiatives aimed at enhancing employee motivation through fair reward systems, clear career development pathways, structured coaching and mentoring

programs, and the creation of a supportive work environment that fosters employee engagement.

At the same time, human resource competency remains a fundamental capability that must be strengthened through needs-based training, professional certification programs, continuous learning initiatives, and the development of a learning-oriented culture. Clinical leadership and management support should be directed toward creating a conducive organizational environment that enables individuals to realize their full potential. Consequently, human resource development strategies within corporate clinic networks should focus not only on improving technical competencies but also on continuously strengthening employee motivation and organizational support.

CONCLUSION

This study demonstrates that strengthening human resource service capability within the IHC Clinic network cannot be achieved solely through improving employees' technical competencies. Service capability is shaped by a combination of individual quality and a supportive work environment that enables employees to contribute at their highest potential. The findings confirm that human resource competency, work motivation, clinical leadership, and management support all play significant roles in shaping human resource service capability, although their relative contributions differ.

The most prominent finding of this study is the strong influence of work motivation compared to the other factors examined. This suggests that employees who possess high levels of enthusiasm, commitment, and engagement are more likely to deliver superior service, even in increasingly complex work environments. While competency remains an essential foundation, its impact becomes more optimal when accompanied by strong work motivation. In other words, both capability and willingness to perform must develop simultaneously in order to achieve high-quality service outcomes.

The study also reveals that human resource service capability is not determined solely by individual characteristics. Clinical leadership and management support were found to significantly influence how employees perform their roles in service delivery. These findings highlight that service quality is not built exclusively through training and competency development but also through the organization's ability to create a supportive work environment, provide clear direction, and ensure the availability of resources required by employees.

For IHC Clinics, these findings provide a clear direction for human resource management. Efforts to strengthen service capability should prioritize enhancing work motivation through more meaningful reward systems, transparent career development opportunities, continuous coaching, and a workplace culture that fosters a strong sense of organizational belonging. At the same time, competency development programs should be aligned with actual service requirements and the operational challenges faced by clinics on a daily basis. Strengthening the capabilities of clinic managers as frontline leaders is equally important to ensure that organizational policies are effectively translated into consistent service practices across all clinics.

Ultimately, this study underscores that the success of a corporate clinic network is determined not only by the growth in the number of services offered, the expansion of clinic locations, or the increase in patient visits. Rather, success depends largely on the organization's ability to develop a competent and motivated workforce, supported by effective leadership and a management system that fosters the delivery of high-quality and sustainable healthcare services.

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