

THE INFLUENCE OF KNOWLEDGE-BASED HRM PRACTICES AND INTELLECTUAL CAPITAL ON INNOVATION PERFORMANCE OF PRIVATE HOSPITAL EMPLOYEES

Imam Santoso¹, Ratna Indrawati², Sukmo Hadi Nugroho³

^{1,2,3} Management Study Program, Esa Unggul University, Jalan Arjuna Utara No.9 Kebon Jeruk,
Jakarta 11510, Indonesia, santoso_imam@ymail.com

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Abstract

Innovation performance is important in influencing human resource management to be able to bring progress to the hospital. Innovation performance is strongly influenced by many aspects, such as knowledge-based human resource management which influences intellectual capital (human capital, structural capital, and relational capital). This research involved 81 hospitals and 221 employees (managers/leaders of private hospitals) in the Greater Jakarta area. This type of research is deductive, and data collection by distributing questionnaires. The analytical method used is the Structural Equation Model (SEM). The results obtained from this study are that knowledge-based HRM practices have direct and indirect effects on human capital, structural capital, and innovation performance. Furthermore, human capital can influence structural capital and innovation performance. Human capital also plays a role in mediating the relationship between knowledge-based HRM practice and structural capital and innovation performance, but it fails to mediate the relationship between knowledge-based HRM practice and relational capital. In addition, this research also proves that structural capital can mediate the relationship between knowledge-based HRM practice and innovation performance. Intellectual capital can affect innovation performance. Finally, knowledge-based HRM practice and human capital cannot influence relational capital, so relational capital cannot mediate the relationship between knowledge-based HRM practice and innovation performance.

Keywords: Knowledge-Based Human Resources, Capital, Innovation, Performance.

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INTRODUCTION

Innovation performance is one of the management science materials that is often discussed lately¹. Various types of industries rely on intangible assets such as innovation performance to survive in the face of increasingly fierce competition². Innovation performance is one of the important issues that need to be considered in an organization³. Innovation performance can be the latest product or process discovered or created by employees or members of the organization. Furthermore, innovation performance can make an organization have a potential competitive advantage to survive in the midst of increasingly rapid competition⁴. With high innovation performance, the organization will be more confident in its ability to develop and achieve success.⁵

Innovation depends on effective human resources, because innovation is obtained from the development of knowledge owned from these human resources such as new ideas, new concepts, and the like⁶. Human resources and knowledge are the main keys in building an innovation, where knowledge-based HRM practices have a positive influence on the company's innovation performance. Other research revealed that the importance of knowledge-based HRM practices for SME product and process innovation⁷. Other theories also reveal that knowledge management included in important points that organizations have to consider in order to achieve sustainable innovation and survival⁸.

¹Yongfu Li and others, 'Intellectual Capital, Knowledge Sharing, and Innovation Performance: Evidence from the Chinese Construction Industry', *Sustainability (Switzerland)*, 11.9 (2019) <<https://doi.org/10.3390/su11092713>>.

²PC Lai, 'Research Methodology for Novelty Technology', *Journal of Information Systems and Technology Management*, 15 (2018) <<https://doi.org/10.4301/s1807-1775201815010>>.

³Henri Tapio Inkinen, Aino Kianto, and Mika Vanhala, 'Knowledge Management Practices and Innovation Performance in Finland', *Baltic Journal of Management*, 10.4 (2015), 432–55 <<https://doi.org/10.1108/BJM-10-2014-0178>>.

⁴Shadi Abualoush and others, 'The Role of Knowledge Management Process and Intellectual Capital as Intermediary Variables between Knowledge Management Infrastructure and Organization Performance', *Interdisciplinary Journal of Information, Knowledge, and Management*, 13 (2018), 279–309 <<https://doi.org/10.28945/4088>>.

⁵{Formatting Citation}

⁶Norwan Ahmad and others, 'Why Not Knowledge-Based HRM? Its Direct and Indirect Effect on Innovative Service Offerings', *SAGE Open*, 10.4 (2020) <<https://doi.org/10.1177/2158244020983003>>.

⁷Angela Baron, 'Measuring Human Capital', *Strategic HR Review*, 10.2 (2011), 30–35 <<https://doi.org/10.1108/14754391111108338>>.

⁸Li and others.

Furthermore, some previous researchers have discussed the interrelated relationship between HRM in a knowledge perspective with innovation⁹ and intellectual capital¹⁰. This relationship certainly has a positive impact on an organization or company. The research concept of Kianto et al. (2017) has identified the effect of knowledge-based HRM practices on the company's intellectual capital and increased higher innovation performance results. Where his research reveals that knowledge-based HRM practices have a considerable share in influencing company innovation, starting from the recruitment, development, evaluation, and compensation processes. In addition, intellectual capital as a predictor of the company's intangible value, such as skills to motivate employees, build external relationships, and knowledge contained in the company's information systems, documents, and databases.

Intellectual capital will also have an influence on corporate innovation. This relationship has been proven by several previous studies¹¹. Overall, HRM practices have a significant role in determining innovation through organizational knowledge and increasing intellectual capital (Kianto et al., 2017). Until now, the relationship between these variables is still an interesting issue that is most often explored by various researchers. However, it is still rare for these researchers to investigate the relationship between knowledge-based HRM practices, intellectual capital, and innovation

⁹Isabel Pizarro Moreno, Juan C. Real, and M. Dolores de la Rosa, 'La Incidencia Del Capital Humano y La Cultura Emprendedora En La Innovación', *Cuadernos de Economía y Dirección de La Empresa*, 14.3 (2011), 139–50 <<https://doi.org/10.1016/j.cede.2010.09.001>>.

¹⁰Karl Heinz Leitner, 'The Effect of Intellectual Capital on Product Innovativeness in SMEs', *International Journal of Technology Management*, 53.1 (2011), 1–18 <<https://doi.org/10.1504/IJTM.2011.037235>>.

¹¹Carmen Cabello-Medina, Álvaro López-Cabrales, and Ramón Valle-Cabrera, 'Leveraging the Innovative Performance of Human Capital through HRM and Social Capital in Spanish Firms', *International Journal of Human Resource Management*, 22.4 (2011), 807–28 <<https://doi.org/10.1080/09585192.2011.555125>>; Eduardo Bueno and others, 'Tangible Slack versus Intangible Resources: The Influence of Technology Slack and Tacit Knowledge on the Capability of Organisational Learning to Generate Innovation and Performance', *International Journal of Technology Management*, 49.4 (2010), 314–37 <<https://doi.org/10.1504/IJTM.2010.030161>>; Zainab M. Aljuboori and others, 'Intellectual Capital and Firm Performance Correlation: The Mediation Role of Innovation Capability in Malaysian Manufacturing SMEs Perspective', *Sustainability (Switzerland)*, 14.1 (2022) <<https://doi.org/10.3390/su14010154>>.

performance in the health sector, especially hospitals, such as in government¹², companies¹³, SMEs¹⁴, banks¹⁵ and in manufacturing company¹⁶.

Based on this, the author wants to explore the relationship between knowledge-based HRM practices, intellectual capital, and innovation performance in the health sector, especially private hospitals, with a main focus on employees who have high positions such as hospital directors, deputy hospital directors, and hospital managers. The purpose of this study is to identify the effect of knowledge-based HRM practices on innovation performance through intellectual capital as well as the direct effect between each variable on high-ranking private hospitals. Intellectual capital in this study will be described as human capital, structural capital, and relational capital. This research concept is inspired by the concept of research conducted by Kianto et al.¹⁷. Furthermore, for business practitioners, especially the health sector, this research offers an understanding of how organizational knowledge in hospital HRM management can be used to improve intellectual capital and innovation performance of the hospital.

RESEARCH METHOD

The method used in this research is quantitative research. This method aims to explain the influence or relationship between the variables proposed through hypothesis testing. The variables in this study are knowledge-based human resource management, intellectual capital (human capital, structural capital and relational capital) as endogenous variables and innovation performance as exogenous variables. This study uses a Likert scale with a value of 1 (strongly disagree/STS) to 5 (strongly agree/SS)¹⁸. Furthermore, this study uses several theories to measure the variables used. The knowledge-based HRM practice variable uses 10 statements that adopt the theory from Hussinki et al. (2020). Measurement of human capital uses 10 statements that use the theory of Baron¹⁹.

¹²Orly Carvache-Franco and others, 'The Relationship between Human-Capital Variables and Innovative Performance: Evidence from Colombia', *Sustainability (Switzerland)*, 14.6 (2022), 1–13 <<https://doi.org/10.3390/su14063294>>.

¹³Kaveh Asiaei and Ruzita Jusoh, 'A Multidimensional View of Intellectual Capital: The Impact on Organizational Performance', *Management Decision*, 53.3 (2015), 668–97 <<https://doi.org/10.1108/MD-05-2014-0300>>.

¹⁴Ahmed Abdulqader Hamad, Şule Tuzlukaya, and Erdem Kırkbeşoğlu, 'The Effect of Social Capital on Operational Performance: Research in Banking Sector in Erbil', *Copernican Journal of Finance & Accounting*, 8.1 (2019), 101 <<https://doi.org/10.12775/cjfa.2019.004>>.

¹⁵Aljuboori and others.

¹⁶Mostafa A. Ali and others, 'Dynamic Capabilities and Their Impact on Intellectual Capital and Innovation Performance', *Sustainability (Switzerland)*, 13.18 (2021) <<https://doi.org/10.3390/su131810028>>.

¹⁷Aino Kianto, Josune Sáenz, and Nekane Aramburu, 'Knowledge-Based Human Resource Management Practices, Intellectual Capital and Innovation', *Journal of Business Research*, 81.1 (2017), 11–20 <<https://doi.org/10.1016/j.jbusres.2017.07.018>>.

¹⁸J. R.P. Clarke, 'Process Analysis', *Analytica Chimica Acta*, 238.C (1990), 3–9 <[https://doi.org/10.1016/S0003-2670\(00\)80517-6](https://doi.org/10.1016/S0003-2670(00)80517-6)>.

¹⁹Baron.

Structural capital assessment uses 10 statements that adopt from Marr's theory²⁰. The total measurements amounted to 50 statements, for more details can be seen in appendix 2 (operational definition of variables).

This study employed the purposive sampling method. The population of this study were leaders/managers in private hospitals in Jabodetabek. Moreover, samples of this study were determined using the non-probability sampling technique. Respondent criteria were employees who work as hospital directors / deputy hospital directors / hospital managers in private hospitals in Jabodetabek and work more than 3 years. Data collection were conducted in 3 months from October to December 2022 by distributing questionnaires online through the Google Form application.

This research analysis method uses SPSS 25 and SEM Lisrel 8.80 applications. The use of SPSS using confirmatory factor analysis for validity testing by looking at the Kaiser-Meyer-Olkin measure of sampling (KMO) value and measures of sampling adequacy anti image matrix correlation (MSA), provided that it is valid if the KMO value and measures of sampling adequacy anti image matrix correlation (MSA) with a minimum limit value of 0.5 to 0.9 with 1 component matrix. Furthermore, a reliability test is carried out provided that the Cronbach alpha value is > 0.6. Meanwhile, SEM Lisrel serves to test the proposed hypothesis²¹.

After distributing the initial questionnaire (pretest) to 30 respondents, there were several invalid statements, such as HR7, HR10 on the knowledge-based HRM practice variable, HC10 on the human capital variable, SC3 on the structural capital variable, R1 on the relational capital variable, and IP1 on the innovation performance variable, so that the total statements in this study were 44 items. Based on theory, the minimum total number of respondents needed in this study is 220 respondents.

Relationship between Knowledge-Based HRM and other variables

Human capital is an important asset in an organization that can be developed through increasing knowledge. HRM practices such as placing employees in appropriate positions, training, and empowerment are directly related to increasing the company's human capital²². Knowledge possessed by organizations can be used to improve the quality of their intellectual capital²³. In addition, knowledge-based HRM practices contribute to determining the level of relational capital.

²⁰Saqib Yaqoob Malik and others, 'Pathways towards Sustainability in Organizations: Empirical Evidence on the Role of Green Human Resource Management Practices and Green Intellectual Capital', *Sustainability (Switzerland)*, 12.8 (2020), 1–24 <<https://doi.org/10.3390/SU12083228>>.

²¹R. P. Jayani Rajapathirana and Yan Hui, 'Relationship between Innovation Capability, Innovation Type, and Firm Performance', *Journal of Innovation and Knowledge*, 3.1 (2018), 44–55 <<https://doi.org/10.1016/j.jik.2017.06.002>>.

²²Özden Altındağ, Özge Fidanbaş, and Gaye İrdan, 'The Impact of Intellectual Capital on Innovation: A Literature Study', *Business Management Dynamics*, 8.12 (2019), 1–12 <www.bmdynamics.com>.

²³Hafiz Ali Javed and others, 'High-Performance Work System and Innovation Capabilities: The Mediating Role of Intellectual Capital', *Administrative Sciences*, 13.1 (2023) <<https://doi.org/10.3390/admsci13010023>>.

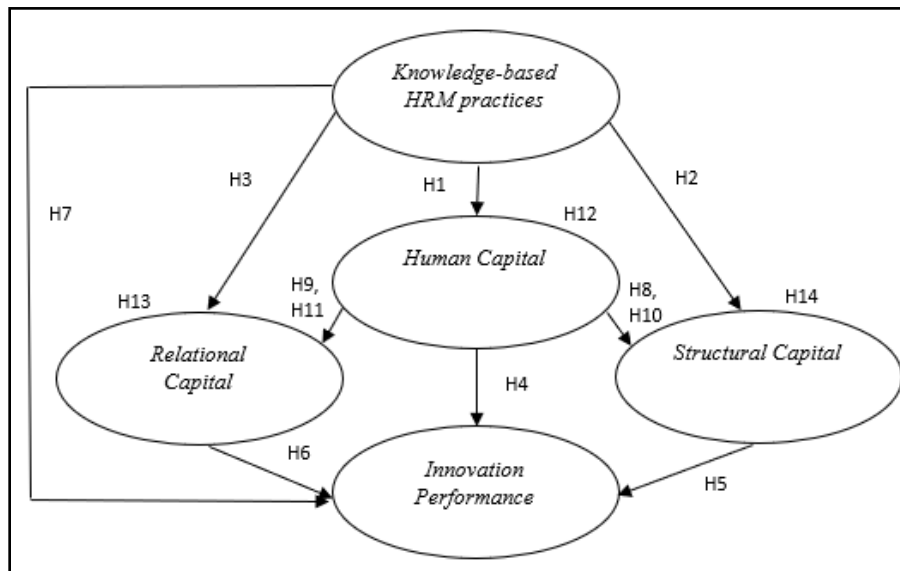


Figure 1. Research Model Constellation

The relationship network (Figure 1) can be a way for organizations to gain and share knowledge from external resources, where that knowledge will be used to improve innovation in the future²⁴. Not only that, quality human capital is certainly able to build quality relationship structures and networks as well, and this will have a positive impact on the shelter organization²⁵. Based on those findings and the theoretical basis outlined earlier, the following hypothesis is formulated :

H1: Knowledge-based HRM practices have a positive effect on human capital

H2: Knowledge-based HRM practices have a positive effect on structural capital

H3: Knowledge-based HRM practices have a positive effect on relational capital

H4: Human capital has a positive effect on innovation performance

H5: Structural capital has a positive effect on innovation performance

H6: Relational capital has a positive effect on innovation performance

H7: Knowledge-based HRM practices have a positive effect on innovation performance

H8: Human capital has a positive effect on structural capital

²⁴Sladjana Cabrilo, Aino Kianto, and Bojana Milic, 'The Effect of IC Components on Innovation Performance in Serbian Companies', *VINE Journal of Information and Knowledge Management Systems*, 48.3 (2018), 448–66 <<https://doi.org/10.1108/VJKMS-06-2016-0033>>.

²⁵Malik and others.

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- H9: Human capital has a positive effect on relational capital
- H10: Human capital mediates the relationship between knowledge-based HRM practices and structural capital.
- H11: Human capital mediates the relationship between knowledge-based HRM practices and relational capital.
- H12: Human capital mediates the relationship between knowledge-based HRM practices and innovation performance.
- H13: Structural capital mediates the relationship between knowledge-based HRM practices and innovation performance.
- H14: Relational capital mediates the relationship between knowledge-based HRM practices and innovation performance

RESULT AND DISCUSSION

Based on the distribution of questionnaires conducted online through google form, 221 respondents were collected in accordance with the predetermined criteria from 81 private hospitals in the Jabodetabek area. From the data obtained, female respondents were 74%, and men were 26%. Furthermore, based on length of work, the most respondents were employees who had worked for more than 20 years as many as 48% and the least as many as 14% were employees who worked for approximately 3 to 10 years. Meanwhile, based on position, the largest number of respondents was the deputy director of the hospital as much as 45.

All variables in this study are declared valid because they have a loading factor value of more than 0.50. Furthermore, the reliability test results will be reliable if they have a construct reliability value > 0.60 and a variance extracted value > 0.50 (Hair et al., 2014). The results of the reliability test also have good results, where the construct reliability (CR) value of knowledge-based HRM practice (HR) is 0.94, human capital (HC) is 0.95, structural capital (SC) is 0.96, relational capital (RC) is 0.96, and innovation performance (IP) is 0.93. The value of CR > 0.90 means that there are significant influence of independent variable (X) to the dependent variable (Y). Furthermore, the variance extracted (VE) value on knowledge-based HRM practice (HR) is 0.65, human capital (HC) is 0.67, structural capital (SC) is 0.74, relational capital (RC) is 0.75, and innovation performance (IP) is 0.60.

Furthermore, the results obtained from the structural test by looking at the R2 value in each equation, namely: the first result, the human capital (HC) variable is influenced by knowledge-based HRM practice (HR) with an R2 value of 0.54. So, it can be interpreted that 54% of the human capital (HC) variable can be explained by the knowledge-based HRM practice (HRM) variable, the remaining 46% is influenced by other variables that are not in this study. The second result, the structural capital (SC) variable is influenced by knowledge-based HRM practice (HR) and human capital (HC) with an R2 value of 0.51. So, it can be interpreted that 51% of the structural capital (SC) variable can be explained by the knowledge-based HRM practice (HRM) and human capital (HC) variables, the remaining 49% is influenced by other variables that are not in this study. The third result, the relational capital (RC) variable is influenced by knowledge-based HRM practice (HR) and human capital (HC) with an R2 value of 0.00048. So, it can be interpreted that 0.48% of the relational capital (RC) variable can be explained by the knowledge-based HRM practice (HRM) and human capital (HC) variables, the remaining 99.52% is influenced by other variables that are not in this

study. The fourth result, the innovation performance (IP) variable is influenced by human capital (HC), structural capital (SC), relational capital (RC) and knowledge-based HRM practice (HR) with an R2 value of 0.49. So, it can be interpreted that 49% of the innovation performance (IP) variable is influenced by human capital (HC), structural capital (SC), relational capital (RC), and knowledge-based HRM practice (HRM), the remaining 51% is influenced by other variables that are not in this study. In the model fit test, the analysis results show that there are still several items with a good fit level such as Chi Square, ECVI, AIC and CAIC, Fit Index, and RMSEA. Furthermore, there are marginal fit items, namely Critical N and Goodness of Fit. which can be seen in appendix 6. The following research results are depicted in the T-Value diagram.

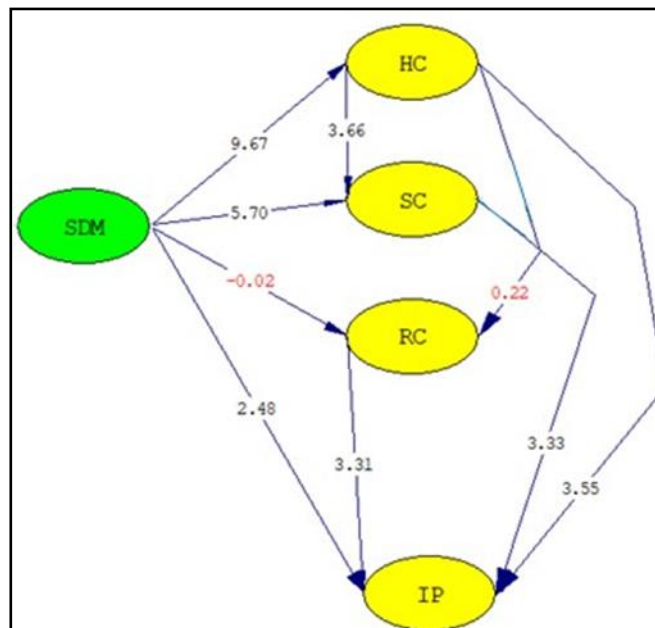


Figure 1. Result Path Diagram T Value

Based on the T-Value Path Diagram, the research model testing can be presented as follows :

Table 1. Model Hypothesis Test

Hypothesis	Hypothesis Statement	Score	Information
		T-Values	
H1	Knowledge-based HRM practice has a positive effect on human capital (HC)	9,67	Data supported the hypothesis
H2	Knowledge-based HRM practice has a positive effect on structural capital (SC)	5,70	Data supported the hypothesis
H3	Knowledge-based HRM practice has a positive effect on relational capital (RC)	-0,02	Data do not supported the hypothesis

H4	Human Capital (HC) has a positive effect on Innovation Performance (IP)	3,55	Data supported the hypothesis
H5	Structural Capital (SC) has a positive effect on innovation performance (IP)	3,33	Data supported the hypothesis
H6	Relational capital (RC) has a positive effect on innovation performance (IP)	3,31	Data supported the hypothesis
H7	Knowledge-based HRM Practices has a positive effect on innovation performance (IP)	2,48	Data supported the hypothesis
H8	Human capital (HC) has a positive effect on structural capital (SC)	3,66	Data supported the hypothesis
H9	Human capital (HC) has a positive effect on relational capital (RC)	0,22	Data do not supported the hypothesis

Analysis of the Role of Mediating Variables

According to Judd and Kenny (1981), mediation is said to be successful if the mediating variable can be influenced by the independent variable, and has an influence on the dependent variable. Furthermore, they also explain that if the independent and dependent variables also have a direct relationship, besides having to go through the mediating variable, this relationship can be said to be partial mediation. The first mediation analysis, namely human capital (HC), was partially successful in mediating the relationship between knowledge-based HRM practice (HR) and structural capital (SC), because human capital (HC) can affect structural capital (SC) with a T-value of 3.66 (>1.96), besides that, human capital (HC) can also be influenced by knowledge-based HRM practice (HR) with a T-value of 9.67 (>1.96). With this it can be said if H10 is accepted.

The second analysis, human capital (HC) was not partially successful in mediating the relationship between knowledge-based HRM practice (HRM) and relational capital (RC), because human capital (HC) cannot affect relational capital (RC) with a T-value of 0.22 (<1.96), although human capital (HC) can be influenced by knowledge-based HRM practice (HRM) with a T-value of 9.67. With this it can be said that H11 is rejected. The third result, human capital (HC) is partially successful in mediating the relationship between knowledge-based HRM practice (HR) and innovation performance (IP), because human capital (HC) can affect innovation performance (IP) with a T-value of 3.55 (>1.96), in addition, human capital (HC) can also be influenced by knowledge-based HRM practice (HR) with a T-value of 9.67 (>1.96). With this it can be said if H12 is accepted.

The fourth result, structural capital (SC) is partially successful to mediate the relationship between knowledge-based HRM practice (HRM) and innovation performance (IP), because structural capital (SC) can affect innovation performance (IP) with a T-Value of 3.33 (>1.96), in addition, structural capital (HC) can also be influenced by knowledge-based HRM practice (HRM) with a T-Value of 5.70 (>1.96). With this it can be said if H13 is accepted. The fifth result, relational capital (RC) cannot partially mediate the relationship between knowledge-based HRM practice (HR) and innovation performance (IP), because knowledge-based HRM practice (HR) cannot affect relational

capital (RC) with a T-Value of -0.02 (<1.96), although relational capital (RC) has a positive effect on innovation performance (IP) with a T-Value of 3.31. With this it can be said that H14 is rejected.

Table 2. Model Hypothesis Results

Hypothesis	Hypothesis Statement	Score		Information
		T-Values		
H10	Human capital (HC) mediates the relationship between knowledge-based HRM practices and structural capital (SC).	HRM to HC 9,67	HC to SC 3,66	Data supported the hypothesis
H11	Human capital (HC) mediates the relationship between knowledge-based HRM practices and relational capital (RC).	HRM to HC 9,67	HC to RC 0,22	Data do not supported the hypothesis
H12	Human capital (HC) mediates the relationship between knowledge-based HRM practices and innovation performance (IP).	HRM to HC 9,67	HC to IP 3,55	Data supported the hypothesis
H13	Structural capital (SC) mediates the relationship between knowledge-based HRM practices and innovation performance (IP).	HRM to SC 5,70	SC to IP 3,33	Data supported the hypothesis
H14	Relational capital (RC) mediates the relationship between knowledge-based HRM practices and innovation performance (IP).	HRM to RC -0,02	RC to IP 3,31	Data do not supported the hypothesis

First result shows a positive effect of knowledge-based HRM practices on human capital. This finding is consistent with the results of subsequent findings which both show the effect of knowledge-based HRM practice positively on improving human capital²⁶. Knowledge-based HRM practices that are well utilized by hospital officials, especially directors, deputy directors, and managers in managing employees, will certainly have a good impact on themselves, the employees, and the hospital. Employees will be encouraged to make themselves better and have the potential to dedicate themselves to the hospital, inseparable from the success of their leaders in designing the right

²⁶John Delaney and Mark Huselid, 'The Impact of Human Resource Management Practices on Perceptions of Organiz...: Discovery Service for CIPD', *The Academy of Management Journal*, 39.4 (1996), 949–69.

management strategy, of course by utilizing existing knowledge²⁷. Here, it is evident that the intervention of hospital management to pay attention to all kinds of needs and needs of existing resources, especially in human capital, can create high potential employees. In this case, both directors, deputy directors, hospital managers will be happy to provide dedication and maximize the potential of their knowledge, in order to participate in building and developing the hospital where they work. This can happen, because they feel that the hospital where they work gives them support, space, facilities, and trust to contribute in managing the hospital.

Further findings prove that knowledge-based HRM practice also has a positive impact on structural capital. This result supports previous research which also found a positive relationship between knowledge-based HRM practice and structural capital²⁸. Hospitals that have a good basic concept in managing their resources, of course, will be in line with the potential resources to be obtained. Starting from the recruitment process, positioning, to the development of its employees, which is very carefully designed by hospital management, it is able to build a strong structure or foundation for the management itself. In this case, respondents indicated that the hospital's HRM practices, which are based on knowledge in processing existing resources, will automatically build infrastructure and information systems both tangible and intangible such as management policies, operational activities, and qualified hospital information resources. This result shows that respondents can feel that the hospital supports them with all the facilities from its intangible assets such as hospital policies, facilities, space, and all kinds of information needed by them to develop their potential, so that they are able and confident in designing and implementing their strategies in Hospital.

The third result shows that knowledge-based HRM practice does not have a positive influence on relational capital. This finding implies that there is more than just knowledge for hospital directors, deputy directors, and managers to build and maintain good relationships with stakeholders in the hospital, either internally or externally to the hospital where they work. Generally, a director, deputy director, and hospital manager not only establish good relations with employees or members of the hospital organization where they work, but also with the surrounding environment of the hospital or other hospitals. This is done by them, so that they can make consideration and increase knowledge about information updates related to the success of the place where they work.

These officials feel they have an obligation to take part in maintaining the good name and advancing their hospital. For example, they will participate in activities outside the hospital, such as seminars on health-related information updates. These activities are not only a means for them to get the latest information, but also a means for them to build a wider network of relationships. Relational capital can be built by maintaining a network of social relationships. Social relationships in hospitals can also be built between directors, deputy directors, hospital managers and hospital patients through communication, either directly or indirectly²⁹. One of them, for hospital directors who are also doctors, will very easily build relationships and good relationships with their patients. It can be during consultation, the health care process, or just a health check. Patients who already trust and are

²⁷Yessy Triana Dewi, Evi Susanti, and Rina Anindita, 'The Role of Psychological Capital, Subjective Well-Being, and Work Engagement in Improving the Performance of Manufacturing Industry Employees', *Budapest International Research and Critics Institute-Journal*, 1 (2020), 27532–44.

²⁸Inkinen, Kianto, and Vanhala.

²⁹Dongsheng Zhang, Hongwei Wang, and Wenfu Wang, 'The Influence of Relational Capital on the Sustainability Risk: Findings from Chinese Non-State-Owned Manufacturing Enterprises', *Sustainability (Switzerland)*, 14.11 (2022) <<https://doi.org/10.3390/su14116904>>.

comfortable with the behavior of their doctor, will be happy to have a good relationship with the doctor and automatically the hospital also becomes their priority of choice when they want to do their health care. Knowledge of the organization to improve the performance of the organization as a whole. This research shows that hospital directors, deputy directors, or managers feel confident in their skills in making a policy and business strategy, able to create renewal or innovation in the way they work and the performance of their hospital³⁰. The easiest example to see is how they position themselves when interacting with patients, the way they make a new breakthrough for the progress of the hospital such as the ease of administration provided by the hospital to patients, or hospital treatment procedures using the latest system standards that are in effect, either nationally or internationally.

The results further prove that knowledge-based HRM practices have a positive effect on innovation performance. This result is in line with previous findings that found a positive effect of knowledge-based HRM practices on innovation performance³¹. This research shows that knowledge-based HRM practices have a role in influencing the performance of hospital employees and the hospital as a whole. Some forms of knowledge-based HRM practices such as giving special attention to employees who match the recruitment standards, space or opportunities for employees to develop, special time to discuss the need for employee development, are proven to produce a positive impact on employees. In this case, the impact caused by HRM practices for directors, deputy directors and hospital managers, is to show their dedication to participate in building innovations that will be applied in hospital performance. The behavior and enthusiasm shown by leaders can be a motivation for employees to work better. The results of these innovations will appear in the increase in the number of potential employees and the number of patients who entrust their health, as well as the excellence of hospitals recognized by the community³².

The next result proves that human capital cannot mediate the relationship between knowledge-based HRM practices and relational capital. This result is different from the study of Kianto et al. (2017) which shows that human capital successfully mediates the relationship between knowledge-based HRM practices and relational capital. This study reveals that it takes more than just HRM practices and human capital to build relational capital in a hospital. To be able to understand the characteristics of patients and other stakeholders both inside and outside the hospital, respondents and hospitals need skills in building a good network of relationships³³. The social relationship that exists between the hospital and patients or other stakeholders will certainly have a positive impact on

³⁰Herriyanto Kurniawan and others, 'Human Capital Strategy Implementation for Start-up Business Over Islamic Boarding Schools Noor Halal Minimarket', *Journal of Multidisciplinary Academic*, 4.3 (2020), 194–98.

³¹Xueying Tian, Chunyang Zhao, and Xiaochun Ge, 'Entrepreneurial Traits, Relational Capital, and Social Enterprise Performance: Regulatory Effects of Cognitive Legitimacy', *Sustainability (Switzerland)*, 14.6 (2022), 1–22 <<https://doi.org/10.3390/su14063336>>.

³²Nastaran Taherparvar, Reza Esmacilpour, and Mohammad Dostar, 'Customer Knowledge Management, Innovation Capability and Business Performance: A Case Study of the Banking Industry', *Journal of Knowledge Management*, 18.3 (2014), 591–610 <<https://doi.org/10.1108/JKM-11-2013-0446>>.

³³Mochamad Soelton and others, 'Conceptualizing the Role of Organizational Performance in Indonesia', *Journal of Asian Finance*, 8.6 (2021), 1151–60 <<https://www.researchgate.net/publication/363133521>>.

the hospital's relational capital. This statement is supported by the results of a positive relationship that exists between social relations and relational capital.

Hospital directors, deputy directors, and managers feel supported, as well as free space to develop and apply their skills for the hospital. That way, they will be encouraged to maximize all their abilities with existing facilities to create an update, such as creating new standards to develop employee potential, the way they carry out health procedures, and so on. These updates will later lead to innovation performance, either for themselves, their employees, or even the overall performance of the hospital. Some concrete examples that can be seen from the existence of these innovations, such as the hospital's ability to manage finances well, so that existing funds can be allocated properly, the existence of qualified health facilities and procedures to support hospital operations. As discussed in the previous paragraph, this study succeeded in finding a relationship between knowledge-based HRM practices with structural capital and knowledge-based HRM practices with innovation performance, where appropriate HRM practices can increase the structural capital of the hospital. The qualified structural capital of the hospital can facilitate human resources, in this case, directors, deputy directors, and hospital managers to apply all their skills to advance and develop the potential that exists in the hospital where they work.

Finally, this study did not find that relational capital mediates the relationship between knowledge-based HRM practices and innovation performance. This is because the relational capital of hospitals in this study is not influenced by knowledge-based HRM practices, so relational capital here cannot mediate the indirect effect of knowledge-based HRM practices on innovation performance. However, this study shows the direct effect of knowledge-based HRM practices and relational capital on innovation performance.

Innovations that occur in private hospitals in this study, such as the increase in the number of potential employees, the superiority of the hospital in competition, the existence of the latest health products or services from the hospital can be directly influenced by the right HRM practices in processing hospital resources and the network of good relationships built between the hospital, both hospital officials or hospital employees with all patients and other stakeholders in the internal or external environment of the hospital. With hospital innovation that occurs on an ongoing basis, it will certainly have a good impact on improving the quality of the hospital and also all members of the hospital. Where then also the innovation is able to make many individuals who entrust their health care to the hospital.

CONCLUSION

Based on the overall results obtained, the conclusion is that in the health industry, especially for hospitals, knowledge-based HRM practice is proven to contribute to increasing human capital, structural capital, and innovation capital, but does not play a role in influencing relational capital. Furthermore, human capital has a role in mediating the relationship between knowledge-based HRM practice with structural capital and innovation performance. Structural capital is also proven to successfully mediate the relationship between knowledge-based HRM practice and innovation performance. Further results found an interrelated relationship between human capital, structural capital, and innovation capital. Then, relational capital cannot be influenced by human capital, but relational capital can affect innovation performance. Finally, relational capital cannot mediate the relationship between knowledge-based HRM practice and innovation performance.

The limitation in this study, including only discussing the variables of knowledge-based human management, human capital, structural capital and relational capital on innovation performance. The

coverage of the population area is still small, only in private hospitals in the Jabodetabek area, so it still does not represent the number of hospitals in the Indonesian region, and there may be different results if it includes respondents from government-owned hospitals. For future research, it is recommended to expand the population distribution area and also include government-owned hospitals as the population of future research. There may be other factors that are more appropriate if applied as predictors of relational capital other than knowledge-based HRM practice. Further research is recommended to replace knowledge-based HRM practice with knowledge management process, this is in accordance with previous theory which states that knowledge management process has a positive effect on intellectual capital.

Knowledge-based HR practices are crucial factors in strategic human resource management and it depends on specific knowledge needed by organization through employees. They are important for service industries for developing human capital and then exploited by employees with the help of innovation termed as employee innovative behavior. Knowledge-based training and development is important for motivating human skills and therefore it is highlighted that there is dearth of knowledge concerning theoretical contribution for understanding causal linkage such as practices (knowledge-based training and development)-resources (human capital)-uses (individual absorptive capacity)-performance (employee innovative behavior).

The managerial implications that can be proposed are the application of HRM practices, such as providing support in the form of facilities and space for employees with high positions such as directors, deputy directors, and hospital managers is considered appropriate, because that way, they will provide their best dedication and skills for the progress of the hospital. Furthermore, intellectual capital in a hospital also needs to be one of the focuses of management attention, because intellectual capital is proven to be able to influence innovation performance. By maximizing the intellectual capital in the hospital, especially the top management, it can make a positive impact on their performance and the hospital as a whole.

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