

Measuring Human Resource Performance with the Human Resource Scorecard Approach: A Study at Balikpapan Baru General Hospital

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Abstract

Background: Measuring HRP is an essential factor that can be used to determine the OP. HR is a crucial organizational asset, and its performance can significantly affect customer satisfaction and financial performance, ultimately leading to the organization's success. Measurement with the HRSC approach can help organizations develop targeted plans to improve their HRP.

Method: This is a cross-sectional quantitative study using questionnaires on the Likert scale conducted on nurses and midwives. Validity-reliability tests were performed before data collection. Descriptive analysis was used to process the data, and the CDMG was employed to determine the weight of the KPIs.

Results and Discussions: Pearson Correlation resulted in 27 valid statements with a Sig. (2-tailed) value of <0.05 , and Cronbach's Alpha was 0.962. The total number of respondents amounted to 69 people. After conducting CDMG, the KPI result of this hospital is 4.15. The HRSC approach, an HR development strategy, showed good performance results in this study.

Conclusions: Although the overall performance from every HRSC perspective is excellent, hospitals must evaluate existing policies or formulate new ones to maintain good performance results.

Keywords: *performance, human resources, HRSC, hospital.*

INTRODUCTION

Businesses in the health sector offer services based on the interaction between people in it. So, the human resources (HR) that are organizational assets and their performance is one of the benchmarks for organizational success. Professional HR will improve the quality of health services provided (Kanyaku, 2019; Surji and Sourchi, 2020; Lohana *et al.*, 2021; Yafiz *et al.*, 2022).

In addition, technological developments pose a significant challenge so that health services can still be reached, but on the other hand, organizations must also generate the greatest possible profit. Therefore, organizations must improve their performance to win the business competition, be ready to face changes and outperform every existing competition. Serious attention is needed in organizational HR because the involvement of HR is an essential key in this regard (Sembiring *et al.*, 2019; Lohana *al.*, 21; Krijgsheld *et al.*, 2022).

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The field of HR organizations must improve the performance of their HR and motivate them always to complete a series of tasks and responsibilities that have been given (Surji & Sourchi, 2020). In his article, Zhou *et al.* (Zet *al.*, 2020) states that the field of HR must attach importance to the management system and improvement of HR in various aspects, such as providing training to employees and creating and placing them in an appropriate work environment so that it affects the long-term development of the organization (Aini *et al.*, 2023). Therefore, measuring human resource performance (HRP) is an essential factor that can be used to determine organizational performance. The measurement is with the *Human Resources Scorecard* (HRSC) approach developed by Becker *et al.* (2001), which focuses on the process that connects individuals to strategies explained in each perspective (Kanyaku, 2019; Lohana *et al.*, 2021).

HRSC will help the HR field prioritize capabilities and provide the right approach to the organization with its employees (Boudlaie *et al.*, 2020). The study of literature related to HR conducted by Gile *et al.* (Gile, Buljac-Samardzic and Van De Klundert, 2018) found that HR management affects performance outcomes. HR management, especially managers, must confidently understand HR tasks such as organizing, recruiting, training staff, and managing performance appraisals and evaluations (Aini, 2018; Wahyuhadi, Hidayah and Aini, 2023).

HRSC is a framework to help optimize HR commitment to organizational goals. Measurement with the HRSC approach begins with the elaboration of the vision, mission, and strategy of the organization into four HRSC perspectives. HRSC helps in considering the organization's current state, simplifying its implementation, and preparing HR to execute its strategy, such as research conducted by Lohana *et al.* (Lohana *et al.*, 2021).

As part of health sector organizations, hospitals undergo more complicated and rapid changes than other organizations. Modern healthcare is changing and becoming more complex due to new disease patterns, technological developments, unpredictable patient needs, infrastructure, and many others. Balikpapan Baru General Hospital is one of the private hospital; where it is known that since 20 years of establishment, this hospital has never measured HRP due to the absence of performance indicators that can be used to make these measurements. So far, the hospital's HR field only evaluates HRPs based on their competencies, and there needs to be a connection to the hospital's vision, mission, and strategy. Balikpapan Baru General Hospital needs to know the effect of its HRP in real terms on its success so that the management and development of HR can be adequately on target, ultimately increasing the hospital's success.

METHOD

This research is a type of quantitative research with a *cross-sectional study* approach and uses an adapted questionnaire. The samples in the study were nurses and midwives, and the research sampling technique used total sampling, where all populations that met the criteria were included in the study. Data collection techniques using questionnaires that have previously been carried out Validity Tests using Pearson Correlation and Reliability Tests using Cronbach's Alpha, as well as Consensus Decision Making Group (CDMG) involving the management of Balikpapan Baru Hospital to be able to reach an agreement in providing *key performance indicators* (KPIs) weighting values from each HRSC perspective.

RESULTS

Validity-Reliability Test

The results of the validity test with Pearson Correlation are valid if the value of *Sig.* (2-tailed) <0.05. Of the 28 items, one item was declared invalid with a *Sig.* (2-tailed) value

of 0.261 and was decided to be removed from the research instrument. Thus, a total of 27 valid items were obtained. The reliability test results of Cronbach's Alpha questionnaire >0.6 indicate that this questionnaire is a reliable research instrument.

Respondents' Characteristics

The respondents in this study were nurses and midwives, totaling 69 people. The characteristics of respondents in this study include age, gender, education level, occupation, length of work, employment status, and work unit.

Table 1 Characteristics of Respondents (N=69)

Variable	N	Percentage (%)
Age		
<30 years old	41	59,42
30-40 years old	22	31,88
40-50 years old	5	7,25
>50 years old	1	1,45
Gender		
Woman	62	89,86
Man	7	10,14
Education Level		
DIII	53	76,81
S1	15	21,74
S2	1	1,45
Occupation		
Nurse	53	76,81
Midwife	16	23,19
Working Period		
<1 years	15	21,74
1-2 years	16	23,19
>2years	38	55,07
Employee Status		
Permanent	57	82,61
Non-permanent	12	17,39
Working Unit		
Outpatient Care	13	18,84
Ward Unit	38	55,07
Surgery Room	6	8,70
Emergency Unit	12	17,39

Based on Table.1, more than half of the respondents (59.42%) were aged <30 years and were female (89.86%). The level of DIII education and nursing employment had the same and highest number of respondents (76.81%). Many of the respondents worked in

inpatient rooms (55.07%), had permanent employment status (55.07%), and had worked >2 years (55.07%).

Consensus Decision Making Group (CDMG)

The weighting results through CDMG can be seen in Table 2 below.

Table 2 Weighting Results Based on HRSC Perspectives

Performance Goals	KPI	Weight
Financial Perspective		0,2
Training effectiveness	Cost- The cost of HR training is effective (F1)	0,04
	The training provided affects HRP (F2)	0,04
Cost of Revenue	HRP results increase hospital revenues (F3)	0,04
	Job satisfaction motivates productivity (F4)	0,05
	Hospital income affects HR income (F5)	0,03
Customer Perspective		0,3
Compensation	Compensation awarded for HRP (C1)	0,03
	Recognition of work achievements of HR (C2)	0,03
Competence	The ability of HR to complete tasks (C3)	0,04
	HR skills (C4)	0,04
	Cooperation between colleagues (C5)	0,04
Career Path	Opportunities for career development (C6)	0,04
Pride	A sense of pride in work (C7)	0,04
	Positive work environment (C8)	0,04
Internal Business Process Perspective		0,2
Work Environment	The facilities provided facilitate the work (I1)	0,02
	HR gets security during work (I2)	0,03
Work Process	Work can be completed appropriately (I3)	0,03
	The hospital provides clear standards and procedures (I4)	0,04
	Services provided to patients according to applicable standards (I5)	0,03
Quality of Process	Effective communication with patients (I6)	0,02
	Priority of services provided (I7)	0,03
Learning and Growth Perspective		0,3
Training and Development	HR attends the training provided (L1)	0,05
	The hospital provides complete facility support (L2)	0,04
	Awareness of HR to develop capabilities (L3)	0,05
	HR develops the ability optimally (L4)	0,04
Hospital information management system	Ease of accessing the required information data (L5)	0,04

HR Engagement	Participation of HR in activities of the hospital (L6)	0,04
	HR is involved in hospital activities (L7)	0,04

Based on Table 2, the financial and internal business process perspectives get a weight of 0.2, and the other two get a weight of 0.3. This weighting will be used to see the performance measurement results based on each perspective by looking at the questionnaire answer scores that respondents have filled out.

Results of KPIs

Table 3 shows the results of KPIs achievement, which is the result of multiplication between the weight and the average score of each indicator, or called the weighted score.

Table 3 KPIs Achievement

KPI	Weight	Score	Weighted Score
Financial Perspectives	0,2		0,81
F1	0,04	4,13	0,17
F2	0,04	4,12	0,16
F3	0,04	4,01	0,16
F4	0,05	4,17	0,21
F5	0,03	3,68	0,11
Customer Perspectives	0,3		1,25
C1	0,03	3,65	0,11
C2	0,03	3,88	0,12
C3	0,04	4,17	0,17
C4	0,04	4,19	0,17
C5	0,04	4,29	0,17
C6	0,04	4,26	0,17
C7	0,04	4,43	0,18
C8	0,04	4,19	0,17
Internal Business Process Perspectives	0,2		0,84
I1	0,02	3,91	0,08
I2	0,03	4,09	0,12
I3	0,03	4,19	0,13
I4	0,04	4,20	0,17
I5	0,03	4,41	0,13
I6	0,02	4,42	0,09
I7	0,03	4,28	0,13
Learning and Growth Perspectives	0,3		1,25
L1	0,05	4,28	0,21

L2	0,04	4,06	0,16
L3	0,05	4,39	0,22
L4	0,04	4,29	0,17
L5	0,04	4,10	0,16
L6	0,04	3,87	0,15
L7	0,04	4,06	0,16
Total	1		4,15

Overall, the KPIs achievement result based on Table 3 is 4.15. The achievement of the KPI financial *perspective is 0.81*, the customer perspective with a score of 1.25, the *internal business process perspective* with a score of 0.84, and the *learning and growth perspective* with a score of 1.25.

DISCUSSION

The measurement of HRP at Balikpapan Baru General Hospital obtained a total score of 4.15, meaning that HRP at this hospital is included in the good category based on Table 4.

Table 4 HRP Appraisal Criteria

Category	Criteria
Very Less	$1,0 \leq \text{Score} < 1,8$
Less	$1,8 \leq \text{Score} < 2,6$
Average	$2,6 \leq \text{Score} < 3,4$
Good	$3,4 \leq \text{Score} < 4,2$
Excellent	$4,2 \leq \text{Score} < 5,0$

Source (Rusindiyanto, 2009)

HR is a crucial factor in organizations to excel in every competition. Performance measurement with BSC that focuses on HR, or HRSC, is one of the HR development strategies (Masruroh, 2013; Nafari & Rezaei, 2022). Because HRSC developed by Becker et al. (Ulrich, Huselid and Becker, 2001) is a derivative of BSC discovered by Kaplan and Norton (Kaplan and Norton, 1992), HRSC has four perspectives in common: financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. The results of measuring HRP from four HRSC perspectives can be seen from the weighted scores of each perspective.

HRP Financial Perspective

In this study, the results of measuring HRP based on a financial perspective received a weighted score of 0.81 which is included in the excellent category. The indicator that received the highest average score from a financial perspective was "job satisfaction motivates productivity," with a score of 4.17. Job satisfaction has become essential to organizational success (Alshraideh *et al.*, 2017). Some studies believe job satisfaction is vital to HR productivity (Al *et al.*, 2020). Job satisfaction also significantly affects the attitudes and contributions of HR (Suifan *et al.*, 2017). HR who feel satisfied and optimistic will lead to customer satisfaction, ultimately improving the organization's financial performance (Sarraf, 2018).

Furthermore, the lowest average score from a financial perspective, with a score of 3.68, is the indicator "hospital revenue affects HR income" on the revenue cost performance

target. HR income may include; income following pre-arranged salaries and benefits, additional income determined by the organization's and individual's performance, respectively, bonuses, and other benefits (Do, 2021; Mastutik and Aini, 2022). One study states that the decrease in hospital income causes a decrease in the salary of non-civil servant nurses, which affects welfare and increases turnover (Muslim & Sutinah, 2020). Turnover will disrupt hospital services, managerial processes and increase costs. Hospital revenue will also be indirectly disrupted due to decreased employee performance productivity (Dewanto & Wardhani, 2018).

HR of health workers in developing countries are often underpaid, which ultimately causes them to be less motivated to improve their performance (Khim, 2016). Hospital revenue results from HRP, increasing customer satisfaction and improving the organization's financial performance (Sarraf, 2018). Therefore, payment related to consistent service is essential to increase the motivation and enthusiasm of HR (Khim, 2016).

HRP Customer Perspective

Based on the customer perspective, HRP gets a weighted score of 1.25 and is included in the excellent category.

The "sense of pride in work" indicator of the pride performance goal received the highest average score with a value of 4.43. Pride is a self-conscious emotion accompanied by pleasant feelings and is a signal of superior performance, in this case referring to the pride employees feel towards achieving their performance. Employees must associate their performance with their abilities and efforts to feel a sense of pride (Aini, Dzakiyullah and Abdulmir, 2023). A successful performance associated with such a factor as luck is unlikely to arouse pride. Furthermore, employees who repeatedly experience an emotion of pride based on their performance are more likely to become proud of their work and increase their job satisfaction (Kraemer et al., 2017).

Two indicators on the compensation performance goal received a low average score, whereas the indicator "compensation awarded for HRP" was the lowest, with a score of 3.65. These indicators should concern the hospital's HR management because compensation significantly influences employee performance, in line with research conducted by Khairunnisa et al. (2021). Of course, compensation will also positively correlate with organizational performance, where the hospital's chosen compensation method will significantly affect employee productivity and well-being (Lazear, 2018; Khairunnisa et al., 2021). Compensation will affect the extent to which organizational goals can be achieved and the organization's survival (Abadi & Renwarin, 2017).

Compensation is a critical factor that organizations need serious attention to because compensation can attract and retain quality HR. This compensation can be in the form of salaries or wages, incentives, benefits, and facilities, both received directly and indirectly (Khairunnisa et al., 2021). Other non-financial compensation can be praise, self-esteem, and recognition.

HRP Internal Business Process Perspective

This perspective falls into the excellent category, with a weighted score of 0.84. Performance targets in this perspective are the work environment, work processes, and service quality.

The "effective communication with patients" indicator of the service quality performance goal received the highest average score of 4.42. HRP dramatically influences the quality of services provided. Effective communication with patients, for example, has an advantageous relationship with patient trust and satisfaction and may act as a benchmark for the quality of health services provided directly or indirectly. (Birkhäuser *et al.*, 2017; Chandra et al., 2018). Service quality will ultimately affect organizational performance,

such as research conducted by Abd-Elrahman et al. (2020) and Ojo (2021), where both show that service quality has a significant positive relationship with organizational performance (Zulham *et al.*, 2022). A bibliometric study on hospital HRP by Adha and Aini (2023) shows that quality keywords appear the most. Quality may apply to various ideas, including HR management, performance, healthcare services, patient care, and organizational structure quality. (Mohamed and Hameed, 2015; Khatri *et al.*, 2017). All of these features are linked and may significantly impact hospital performance. Quality has become increasingly essential for organizations to thrive in a global marketplace (Akdere, 2009).

The lowest average score belongs to the indicator "facilities provided facilitate work" from the work environment performance goal, with a score of 3.91. The work environment positively and significantly influences HRP (Maya et al., 2021). Employees who are satisfied with their work environment tend to have more positive work outcomes (Zhenjing *et al.*, 2022). A safe and comfortable work environment will also increase employee work productivity (Josephine & Harjanti, 2017; Putri et al., 2018). In addition, employees who are satisfied with the facilities in their workplace will also significantly affect work productivity (Groen *et al.*, 2019). Organizations must realize that the work environment also affects employee stress (Desa et al., 2018).

Several studies suggest that a positive work environment affects the lower incidence of work accidents, lower levels of fatigue, and increased job satisfaction (Gershon *et al.*, 2007; Garrett, 2008; Copanitsanou et al., 2017). However, the adverse effects of a poor work environment can lead to adverse outcomes in patients, such as increased mortality and complications, higher rates of readmissions, and increased healthcare costs (Trinkoff *et al.*, 2011; Ma et al., 2014; Copanitsanou et al., 2017). So, hospitals need to pay attention to a positive work environment for employees to create favorable conditions for the organization and the employees themselves.

HRP Learning and Growth Perspective

With a weighted score of 1.25, this perspective falls into the excellent category. Training and development, hospital information systems, and HR engagement are the three performance objectives in this perspective (Aini, 2021a).

A score of 4.39 is the highest average from this perspective, with the indicator "awareness of HR to develop capabilities" on training and development performance goals. Training and development is an effort required by an organization to improve quality and meet global competition. Previous research has proven that training and development positively affect organizational performance, helping to improve quality, customer satisfaction, productivity, morale, management succession, and business development (Aini, 2021b). Thus, it is necessary to emphasize the implementation of regular and relevant workshops and training for HR development (Bolarinwa, 2020).

One indicator of the HR engagement performance goal that gets the lowest average score from this perspective is "HR participation in hospital activities," with a score of 3.87. Kim et al. (2013) investigated the involvement of HR with organizational performance and proved a positive relationship. This involvement has a positive relationship with other aspects related to work, namely individual morale, individual performance, and off-task performance (Aisyah Ardhani and Aini, 2022). Employee engagement represents an employee's enthusiasm, passion, and commitment to the job and organization (Myrden & Kelloway, 2015).

HR engagement is a relationship between employees and the company, whereby they are fully engaged and passionate about their work, thus taking positive actions to increase the prestige and importance of the organization (Tanwar, 2017). Thus, hospitals must ensure their HR involvement in all activities to achieve organizational goals. Hospitals should also provide opportunities for them to participate in hospital policy formulation.

Policymakers should consider the professional development needs of HR and implement initiatives to increase rewards and other benefits, as this affects job satisfaction (Atefi *et al.*, 2014).

In general, HRP from each HRSC perspective is included in the excellent category, and overall, HRP at Balikpapan Baru General Hospital with the HRSC approach is included in the good category. However, hospitals still need to strive for improvement in all aspects and maintain or even increase the performance value successfully achieved. Attention will undoubtedly be paid more to indicators that get low scores. However, in making improvements, one must always pay attention to other indicators to not decrease their performance value because every indicator in each HRSC perspective is related. Hospitals need to re-evaluate existing policies or formulate new policies related to improving HRP so that performance measurement results can be better.

CONCLUSION AND RECOMMENDATIONS

The results of measuring HRP at Balikpapan Baru General Hospital with the HRSC approach received a weighted total score of 4.15 which shows that HRP is good. Balikpapan Baru General Hospital should maintain good results by conducting regular evaluations to continuously improve its HR management system and identify potential HRPs and weaknesses. Involving hospital management, HR management, and medical staff is crucial to gather their perceptions, address challenges, and gather suggestions for improvement. Technology can support HR management, including performance measurement. Hospitals must evaluate or formulate new policies to maintain good performance results.

Research on HRP measurement at Balikpapan Baru General Hospital with the HRSC approach is limited to the HR of nurses and midwives, so it only reaches some parts of the hospital. Further research is expected to be refined by involving other HR who have yet to be reached in this research.

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Conflict of Interest

The authors declare no conflicts of interest in this study.

References

- Abadi, F. and Renwarin, J. M. (2017) 'Analysis on the Influence of Compensation and Leadership on Job Satisfaction and its Effect on Job Performance', *Advances in Intelligent Systems Research, International Conference of Organizational Innovation*, 131(Icoi), pp. 19–24. doi: 10.2991/icoi-17.2017.16.
- Abd-Elrahman, El-Borsaly, A. and Hassan, S. (2020) 'the Impact of Service Quality on Organizational Performance in the Mobile Telecommunications Sector in Egypt', *Proceedings on Engineering Sciences*, 2(1), pp. 93–104. doi: 10.24874/PES02.01.010.
- Adha, A. N. and Aini, Q. (2023) 'Human Resource Performance in Hospital: A Bibliometric Study', *Jurnal Aisyah: Jurnal Ilmu Kesehatan*, 8(2), pp. 511–518. doi: 10.30604/jika.v8i2.1961.
- Aini, Q. (2018) 'Management Skill and Leadership: A Case Study from Hospital Managers of Charity Business in Health', 4(February 2015), pp. 478–482. doi: <https://doi.org/10.32861/jssr.412.478.482>.
- Aini, Q. (2021a) 'Detecting nurse's personality models with disc', *Bali Medical Journal*, 10(3 Special Issue), pp. 1038–1041. doi: 10.15562/bmj.v10i3.2819.

- Aini, Q. (2021b) 'Emotional Intelligence and Leadership_A Literature Review', *Phichopical Reading XIII*, 3(March), p. 6.
- Aini, Q. et al. (2023) 'Spiritual intelligence, spiritual health and occupational stress in Islamic organisations', *HTS Teologiese Studies / Theological Studies*, 79(1), pp. 1–6. doi: 10.4102/hts.v79i1.8228.
- Aini, Q., Dzakiyullah, N. R. and Abdulmir, M. (2023) 'the Use of Dominance, Influence, Steadiness, and Compliance (Disc) Personality Test in the Assessment of Nurses' Personal Characteristics', *Jurnal Keperawatan Soedirman*, 18(2), pp. 111–115. doi: 10.20884/1.jks.2023.18.2.6592.
- Aisyah Ardhani, M. and Aini, Q. (2022) 'The effect of spiritual leadership and spiritual intelligence on low nurse burnout in a hospital during the COVID-19 pandemic'. doi: 10.5281/ZENODO.6571128.
- Akdere, M. (2009) 'A multi-level examination of quality-focused human resource practices and firm performance: Evidence from the US healthcare industry', *International Journal of Human Resource Management*, 20(9), pp. 1945–1964. doi: 10.1080/09585190903142399.
- Alshraideh, A. T. R. et al. (2017) 'The Impact of Training Strategy on Organizational Loyalty via the Mediating Variables of Organizational Satisfaction and Organizational Performance: An Empirical Study on Jordanian Agricultural Credit Corporation Staff', *Journal of Social Sciences (COES&RJ-JSS)*, 6(2), pp. 383–394. doi: 10.25255/jss.2017.6.2.383.394.
- Atefi, N. et al. (2014) 'Factors influencing registered nurses perception of their overall job satisfaction: A qualitative study', *International Nursing Review*, 61(3), pp. 352–360. doi: 10.1111/inr.12112.
- Birkhäuser, J. et al. (2017) 'Trust in the health care professional and health outcome: A meta-analysis', *PLoS ONE*, 12(2), pp. 1–13. doi: 10.1371/journal.pone.0170988.
- Bolarinwa, S. A. (2020) 'Cost Effect Implications of Training and Development on Organizational Performance of Selected Corporations', *LASU Journal of Employment Relations & Human Resource Management*, 2(1), pp. 50–73. doi: 10.36108/ljerhrm/0202.02.0140.
- Boudlaie, H. et al. (2020) 'Designing a human resource scorecard: An empirical stakeholder-based study with a company culture perspective', *Journal of Entrepreneurship, Management and Innovation. Fundacja Upowszechniajaca Wiedze i Nauke Cognitione*, 16(4), pp. 113–147. doi: 10.7341/20201644.
- Chandra, S., Mohammadnezhad, M. and Ward, P. R. (2018) 'Trust and Communication in a Doctor- Patient Relationship: A Literature Review.', *Journal of Healthcare Communications*, 03(03). doi: 10.4172/2472-1654.100146.
- Copanitsanou, P., Fotos, N. and Brokalaki, H. (2017) 'Effects of work environment on patient and nurse outcomes', *British Journal of Nursing*, 26(3), pp. 172–176. doi: 10.12968/bjon.2017.26.3.172.
- Desa, N. M., Khoon, T. L. and Asaari, M. H. A. H. (2018) 'Work Stress Toward Work Environment, Management Support, and Employee Satisfaction among Employees of Public Organizations', *International Journal of Asian Social Science*, 8(1), pp. 1–11. doi: 10.18488/journal.1.2018.81.1.11.
- Dewanto, A. and Wardhani, V. (2018) 'Nurse turnover and perceived causes and consequences: A preliminary study at private hospitals in Indonesia', *BMC Nursing*, 17(Suppl 2), pp. 1–7. doi: 10.1186/s12912-018-0317-8.
- Do, T. T. (2021) 'Doctor's Assessment on Salary, Income in Vietnam Public Hospital', *Journal of Economics, Finance And Management Studies*, 04(09), pp. 1790–1797. doi: 10.47191/jefms/v4-i9-25.
- Garrett, C. (2008) 'The Effect of Nurse Staffing Patterns on Medical Errors and Nurse Burnout', *AORN Journal*. No longer published by Elsevier, 87(6), pp. 1191–1204. doi: 10.1016/J.AORN.2008.01.022.

- Gershon, R. R. M. et al. (2007) 'Organizational Climate and Nurse Health Outcomes in the United States: A Systematic Review', *Industrial Health. National Institute of Occupational Safety and Health*, 45(5), pp. 622–636. doi: 10.2486/INDHEALTH.45.622.
- Gile, P. P., Buljac-Samardzic, M. and Van De Klundert, J. (2018) 'The effect of human resource management on performance in hospitals in Sub-Saharan Africa: a systematic literature review', *Human Resources for Health* 2018 16:1. BioMed Central, 16(1), pp. 1–21. doi: 10.1186/S12960-018-0298-4.
- Groen, B. H. et al. (2019) 'Impact of employee satisfaction with facilities on self-assessed productivity support', *Journal of Facilities Management*, 17(5), pp. 442–462. doi: 10.1108/JFM-12-2018-0069.
- Josephine, A. and Harjanti, D. (2017) 'Pengaruh Lingkungan Kerja terhadap Kinerja Karyawan pada Bagian Produksi melalui Motivasi Kerja sebagai Variabel Intervening pada PT. Trio Corporate Plastic (Tricopla)', *AGORA*, 5(3), pp. 1–8.
- Kanyaku, Y. P. R. (2019) 'Arrangement of Performance Measurement Tools with Human Scorecard Method in XYZ General Hospital', *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 3(4), pp. 457–473.
- Kaplan, R. S. and Norton, D. P. (1992) 'The balanced scorecard: Measures That drive performance', *Harvard Business Review*, 70, pp. 71–79.
- Khairunnisa, Z. A., Bahri, S. and Effendy, S. (2021) 'Effect of Workload, Compensation, and Motivation on Employee Performance at Madani Medan General Hospital', *Journal Budapest International Research and Critics Institute*, 4(4), pp. 10807–10813.
- Khatri, N. et al. (2017) 'The Relationship Between HR Capabilities and Quality of Patient Care: The Mediating Role of Proactive Work Behaviors', *HHS Public Access*, 56(4), pp. 673–691. doi: 10.1002/hrm.21794.The.
- Khim, K. (2016) 'Are health workers motivated by income? Job motivation of Cambodian primary health workers implementing performance-based financing', *Global Health Action*, 9(1). doi: 10.3402/gha.v9.31068.
- Kim, W., Kolb, J. A. and Kim, T. (2013) 'The Relationship Between Work Engagement and Performance: A Review of Empirical Literature and a Proposed Research Agenda', *Human Resource Development Review*, 12(3), pp. 248–276. doi: 10.1177/1534484312461635.
- Kraemer, T., Gouthier, M. H. J. and Heidenreich, S. (2017) 'Proud to Stay or Too Proud to Stay? How Pride in Personal Performance Develops and How It Affects Turnover Intentions', *Journal of Service Research*, 20(2), pp. 152–170. doi: 10.1177/1094670516673158.
- Krijgsheld, M., Tummers, L. G. and Scheepers, F. E. (2022) 'Job performance in healthcare: a systematic review', *BMC Health Services Research. BioMed Central*, 22(1), pp. 1–18. doi: 10.1186/s12913-021-07357-5.
- Al Kurdi, B., Alshurideh, M. and Al Afaishat, T. (2020) 'Employee retention and organizational performance: Evidence from banking industry', *Management Science Letters*, 10(16), pp. 3981–3990. doi: 10.5267/j.msl.2020.7.011.
- Layasina Sembiring, M., Sinulingga, S. and Absah, Y. (2019) 'Saudi Journal of Business and Management Studies Human Resource Performance Analysis with Human Resource Scorecard Concept at Royal Prima Hospital, Medan, North Sumatra, Indonesia'. *Magister Management*, pp. 2415–6671. doi: 10.36348/sjbms.2019.v04i07.002.
- Lazear, E. P. (2018) 'Compensation and incentives in the workplace', *Journal of Economic Perspectives*, 32(3), pp. 195–214. doi: 10.1257/jep.32.3.195.
- Lohana, S. et al. (2021) 'Performance measurement of human resource by design a human resource scorecard', *Materials Today: Proceedings. Elsevier Ltd*, 51, pp. 677–681. doi: 10.1016/J.MATPR.2021.06.203.
- Ma, C., Shang, J. and Stone, P. W. (2014) "'Can nurse work environment influence readmission risk?'-a systematic review'. doi: 10.2147/NRR.S46156.

- Masruroh, N. (2013) 'Pengukuran Kinerja Menggunakan Human Resources Scorecard dalam rangka Meningkatkan Kinerja di PT. Rajawali Tanjungsari', *Jurnal Ilmu Administrasi Bisnis*, 2(4), pp. 1–11.
- Mastutik and Aini, Q. (2022) 'Assessment Of Employee Satisfaction in A Public Hospital (Results of the 2019-2021 Internal Customer Satisfaction Survey)', *Res Militaris*, 12(3), pp. 445–458.
- Maya Sari, A., Ribhan and Erlina, R. (2021) 'The Effect of the Work Environment on Employee Performance with Motivation as a Mediation Variables', *International Journal of Disaster Recovery and Business Continuity*, 12(1), pp. 372–382.
- Mohamed, N. S. and Hameed, S. A. (2015) 'The Impact of Human Resources Management Practices', *International Journal of Management (IJM)*, 6(1), pp. 603–612. doi: 10.2139/ssrn.3084946.
- Muslim, A. and Sutinah, S. (2020) 'Program Retensi Perawat untuk Mengurangi Turnover Perawat Non PNS di Rumah Sakit X', *Jurnal Ners dan Kebidanan (Journal of Ners and Midwifery)*, 7(2), pp. 162–169. doi: 10.26699/jnk.v7i2.art.p162-169.
- Myrden, S. E. and Kelloway, E. K. (2015) 'Leading to customer loyalty: a daily test of the service-profit chain', *Journal of Services Marketing*, 29(6–7), pp. 585–598. doi: 10.1108/JSM-01-2015-0058.
- Nafari, E. and Rezaei, B. (2022) 'Relationship between human resources strategies and organizational performance based on the balanced scorecard in a public hospital in Iran: a cross-sectional study', *BMC Health Services Research. BioMed Central Ltd*, 22(1), pp. 1–8. doi: 10.1186/S12913-022-07767-Z/TABLES/5.
- Ojo, A. A. (2021) 'Role Of Service Quality On Organizational Performance Among Telecommunication Employees In Southwestern States In Nigeria', *Psychocentrum Review*, 3(2), pp. 198–205. doi: 10.26539/pcr.32635.
- Putri, D. O., Triatmanto, B. and Setiyadi, S. (2018) 'The effect of occupational health and safety, work environment and discipline on employee performance in a consumer goods company', *IOP Conference Series: Materials Science and Engineering*, 337(1). doi: 10.1088/1757-899X/337/1/012036.
- Rusindiyanto (2009) 'Analisis Kinerja Sumber Daya Manusia Dengan Metode Human Resources Scorecard (HRSC) Studi Kasus di PT. Arto Metal Internasional Sidoarjo', *Jurnal Penelitian Ilmu Teknik*, 9(2), pp. 123–129.
- Sarraf, A. R. A. (2018) 'Relationship between Emotional Labor and Intrinsic Job Satisfaction: The Moderating Role of Gender', *Journal of Entrepreneurship & Organization Management*, 07(01). doi: 10.4172/2169-026x.1000227.
- Suifan, T. S., Diab, H. and Abdallah, A. B. (2017) 'Does organizational justice affect turnover-intention in a developing country? The mediating role of job satisfaction and organizational commitment', *Journal of Management Development*, 36(9), pp. 1137–1148.
- Surji, K. M. and Surchi, S. M. (2020) 'The Essential Role of Human Resources Management in Healthcare and Its Impact On Facilitating Optimal Healthcare Services.', *Qalaai Zanist Scientific Journal*, 5(2), pp. 1166–1188. doi: 10.25212/ifu.qzj.5.2.35.
- Tanwar, A. (2017) 'Impact of Employee Engagement on Performance', *International Journal of Advanced Engineering, Management and Science (IJAEMS)*, 3(5), pp. 510–515. doi: 10.26737/ij-mds.v4i1.1673.
- Trinkoff, A. M. et al. (2011) 'Nurses' work schedule characteristics, nurse staffing, and patient mortality', *Nursing Research*, 60(1), pp. 1–8. doi: 10.1097/NNR.0b013e3181fff15d.
- Ulrich, D., Huselid, M. A. and Becker, B. E. (2001) *The HR Scorecard: Linking People, Strategy, and Performance*, Harvard Business Review Press. Available at: <https://www.amazon.com/HR-Scorecard-Linking-Strategy-Performance/dp/1578511364> (Accessed: 11 April 2023).
- Wahyuhadi, J., Hidayah, N. and Aini, Q. (2023) 'Remuneration, Job Satisfaction, and Performance of Health Workers During the COVID-19 Pandemic Period at the Dr. Soetomo Hospital

Surabaya, Indonesia', *Psychology Research and Behavior Management*, 16(March), pp. 701–711. doi: 10.2147/PRBM.S396717.

Yafiz, M. et al. (2022) 'Islamic religiosity and job satisfaction among Muslim teachers in Malaysia', *HTS Teologiese Studies / Theological Studies*, 78(4), pp. 1–6. doi: 10.4102/hts.v78i4.7569.

Zhenjing, G. et al. (2022) 'Impact of Employees' Workplace Environment on Employees' Performance: A Multi-Mediation Model', *Frontiers in Public Health*, 10(May). doi: 10.3389/fpubh.2022.890400.

Zhou, T. et al. (2020) 'Application and Experience of Putting People First in Hospital Human Resource Management', *Proceedings of Anticancer Research. Bio-Byword Scientific Publishing, Pty. Ltd.*, 4(6). doi: 10.26689/PAR.V4I6.1686.

Zulham, Z. et al. (2022) 'Analysing the relationship between ethical leadership and the voice of Malaysian Muslim employees', *HTS Teologiese Studies / Theological Studies. AOSIS (pty) Ltd*, 78(4), p. 6. doi: 10.4102/HTS.V78I4.7340.