The Effect of Relational e-HRM Practices on Employee Productivity Through Employment Performance on Hospital Employees in Bandung

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Abstract
The study aims to analyze the impact of relational e-HRM practices that are a starting factor in efforts to improve productivity through performance on hospital employees in Bandung. This research method uses a quantitative approach, data collected using a questionnaire. A sample of 300 randomly selected hospital staff in Bandung during the Covid-19 pandemic. Structural Equation Model (SEM) method covariance is used to analyze data. The type of research is the testing of causal hypotheses with cross sectional data. The results show that changes in employee productivity can be predicted by changes in employee performance. Relational e-HRM practices have a positive influence on employee performance. The resulting managerial implications, the healthcare personnel in hospitals as the leading guards have improved employee productivity as the hospital governance system changes. Strict health protocols, a combination of stress, keeping distance in pandemic times is a challenge for health workers. Efforts to improve employee performance and the success of some e-HRM systems in facing obstacles are met. Leaders need to understand the situation of service change. The understanding from the employee's perspective of the health care system that can improve employee performance is improving.

Keywords: Relational e-HRM Practise, Employee Productivity, Employee Performance, Service System

INTRODUCTION

Health power is the front line of defense for treating and serving patients during pandemics or epidemics. Changes in the behavior of everyday life and the world of health such as systems used, management policies, even changing methods of work are becoming a Covid-19 pandemic phenomenon. The combination of stress and potential exposure makes healthcare professionals highly susceptible to infection and spreading Covid-19 to others. (Said & El-Shafei, 2021). At the same time, the Director-General of the World Health Organization (WHO) announced on March 11, 2020 that Corona Virus Disease (COVID-19) will be a global pandemic in a few months. (Dong L 2020).

Such conditions have an impact on the presence of hospitals that are crucial during pandemics. Hospital resources include medical staff including doctors, nurses, pharmacists, analysts, nutritionists, physiotherapists, radiographers, medical recorders as well as non-health staff including financial, administrative, personnel, security, etc. (Apriansyah, 2021). Stress can lead to a decrease in the performance of nurses. When job demands are high then it will be difficult for workers to allocate energy effectively because it takes a lot that leads to a decrease in performance (Bakker, 2014). Health care, especially nurses, is one of the jobs with high labor demands, which will have an impact on productivity. (Maharja, 2015).

As a result, the labour productivity figure in 2020 has decreased compared to 2019, which is down about 3.55 percent. Measures that management organizations can take to improve productivity in a comprehensive and integrated way, including conducting a situation analysis, making a program plan to increase productiveness, generating a productive awareness, implementing a program that has been designed, and carrying out an evaluation of programmes that have been running according to (Nurmayetti, 2017) written in the literature (Maria &
Labour productivity is the attitude and behavior of employees in a company to the rules and standards set by the company that are expressed both in the form of behavior and actions within the company and organization. (Salvatore, 2011). Through improved competence, meaningful work, autonomy, and impact, it is beneficial to improve team efficiency, thus affecting performance and attitude. Implications on performance, improved employee productivity, proactivity, and customer service while on working attitudes increase job satisfaction and organizational commitment (Jasrin et al., 2020).

In the digital economy, the use of online systems is relevant to all organizations, one such system is e-HRM that helps streamline the operations of the SDM department as well as organizational support should be noted because the implementation of e-HRM requires that employees have the necessary support. (Rathee & Bhunel, 2021). Other sources state that e-HRM creates and implements quality human resource management (HRM) based on information and communication technology (Ruël, Bondarouk, & Looise, 2004). Similarly, it describes a set of innovative ways of working that deliberately innovate traditional systems within an organization and also improve the performance of human resources to provide a competitive advantage to an organization. (Tavakoli, Nazari, Ahmadi, & Niknam, 2015). In the digital economy, the use of online systems is relevant to all organizations, one such system is e-HRM that helps streamline the operations of the SDM department as well as organizational support should be noted because the implementation of e-HRM requires that employees have the necessary support. (Rathee & Bhunel, 2021).

The latest e-HRM review by (Bondarouk, Ruël, & Parry, 2017), that e-HRM may improve the efficiency of human resources and contribute to the achievement of organizational goals. According to naveed exploring the role of e-HHRM provides positive productivity that role e-HRM and impersonal trust in influencing employee productiveness (Naveed, Mansoor, & Matthew M.C, 2019). Remote work and remote collaboration, the e-HRM system enables efficient remote team management, facilitating collaboration between teams scattered at different locations. Harmonizing schedules through features such as online schedules and integrated time management, e-HRM helps to coordinate different employee work schedules.

**RESEARCH METHODS**

The data processing procedure will be carried out with the help of AMOS SPSS 23 Program. The stages in the modeling of structural equations in this study refer to (K. Oluwo, 2022). This research is conducted in a quantitative and descriptive manner where research is designed by collecting data that describes the characteristics of individuals, events or situations that occur. The things that need to be outlined in the research plan are the research structure that guides the process and the results of the research with the type of research testing causal hypothesis. (Testing Hipotesis). This research is to test the relational e-hrm practice, transformation leadership, employee productivity that is mediated by employee performance in employees of Kota Bandung hospital.

The data analysis did not take into account the impact of such time differences on the intersection variables. In gaining a fundamental insight into complex phenomena, cross sectional modeling methods will undoubtedly remain a method for frequency analysis. (Mannering, 2018). The research population is the staff of the hospital or health care in the city of Bandung. According to the health care profile of the city of Bandung. The total healthcare staff in 2020 consists of medical laboratory technicians 397 active healthcare personnel, 636 medical technician health personnel. In medical engineering include electro-medical engineers, blood transfusion techniciens, radiographers and medical recorders. So the total health care staff in the
fields of medical laboratories and medical technology is 1,033 people. Based on this number, samples are taken with a 95% confidence rate randomly with the Margin of error set to be 5% or 0.05 using the Slovin formula of 300 health workers.

**RESULT AND DISCUSSION**

The role of e-hrm in the employer context can improve employee productivity as well as technological assets that optimize e-HRM functions where social factors and technical skills interact affect the outcome of a group such as quotation (Widjaja & Wijayadne, 2022). Other studies conducted (Iqbal, Ahmad, Raziq, & Borini, 2019) emphasize that the practical relational impact of e-hrm is in improving employee productivity by using e-HRM, thereby increasing employee confidence in the sdm system and procedures.

Success in employee productivity is supported by improved positive employee performance and also e-hrm management in hospitals. The study of the relationship between the application of e-hrm to employee performance both directly and indirectly through the intervention of the variable quality of human resources services, both practically and theoretically as found by (Nurlina & Situmorang, 2020). Furthermore, when recruitment and selection, training and development, compensation and incentives, performance assessments are positively linked to employee performance as mentioned. (Jouda, Ahmad and Dahleez, 2016).

Based on the results of the survey analysis and the definition of employee performance of the subject above, that employee productivity is influenced by a variety of factors, including:

1) Motivation: Employee motivation can affect employee productivity. Motivation will come from recognition of a good job, growth opportunities, or a positive working environment.

2) Skills and Training: Employees who have the right skills for their work and who are constantly improving those skills through training tend to be more productive.

3) Health and Welfare: The physical and mental health of employees becomes crucial in productivity. Companies that care about their employees' health, such as providing access to wellness programs and supporting work-life balance, can increase productivity.

4) Tools and Technology: Using the right tools and technologies can improve employee efficiency. Having access to the software or equipment needed to complete tasks quickly and efficiently is an important factor.

5) Working environment: A supportive workplace, including an inclusive corporate culture, open communication, and good collaboration, can increase productivity.

6) Leaders and Management: Effective management can provide clear instructions, support employees, and manage resources effectively, thus giving an impact on overall productivities.

Recognizing and controlling these elements can help organizations improve the productivity of their employees and create a more productive working environment overall. There is a possibility that there is a perception of a decrease in performance by 2020 compared to the time before the Covid-19 pandemic. It's due to the lack of support from the superiors and the absence of employee effort to develop according to what is delivered. (Supriadi, Satrya, & Priyati, 2021). As for the conceptual framework of the research set out in Figure 1.
The development of hypotheses is necessary for descriptive research. The hypothesis of this research is based on related theories, logic, and findings of previous research. A hypothesis is based upon a temporary assumption of the problem being studied, and its truth must be empirically tested. The equation of the measurement model involves only the indicator of the construction meter, i.e., with the formulation LV (Latent Variable) = $\lambda$ Variable observed = e1. The result of the structural measurements is as follows: Aspects of e-hrm = 0.759 Websites and social media + 0.769 Newspapers + 0.773 Recruitment Posts + 0.0776 Online Selection Systems + 0.800 Candidate Employee Skills + 0.0759 Operational Standards + 0.707 Online Training and Learning + 0.782 Training Needs Assessment + 0.777 Employees Skills and Performance + 0.789 Informal and Formal Complaints + 0.753 Performance Assessments + 0.796 Online Evaluations + 0.764 Best Employer Rewards + 0.754 Procedures + 0.769 Time-specific Reward + 0.0277 (e1).

Healthcare respondents are 35 per cent men, the majority of healthcare workers are 65 per cent women, and 46 per cent of the healthcare education graduates are 39 per cent, with three to five years of employment. Women are more likely to respond because of the role of women healthcare professionals as well as providing services to the community, they also protect families and the environment. At a time of pandemic there is a potential positive influence of women's health care, namely feminization of the health sector. The majority respondents between the ages of 20 and 30 were 54 per cent with a majority of either women's diploma education background 32 per cent larger than men's 14 per cent. This is because women from the age of 20 to 30 are the most productive age with a diploma educational background as well as professional capabilities. Healthcare respondents with 1 to 3 years of working time were 27%. Healthcare workers with 3 to 5 years of work time had a larger number because they had a high level of experience and loyalty of healthcare workers as seen in table 1.

### Table 1 Validity and Reliability Test Relation e-HRM Practise

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>standardised loading factors</th>
<th>Factor Loading</th>
<th>Cronbach Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>We use websites and other social media for recruitment.</td>
<td>0.759</td>
<td>5.245</td>
<td>0.955</td>
</tr>
<tr>
<td>2</td>
<td>In addition to websites and social media, we use newspapers for recruitment.</td>
<td>0.769</td>
<td>14.114</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>We're posting staff recruitment on Monday-Friday to maximize the number of people who see staff recruiting ads.</td>
<td>0.773</td>
<td>14.195</td>
<td></td>
</tr>
</tbody>
</table>

https://ijhess.com/index.php/ijhess/
### Analysis of research results

The process of managing human resources using electronic means covers all aspects of it. E-Recruitment is one of the indicators as seen in the statement of one hospital using websites and other social media for the recruitment of staff on average 3.83 or belong to either category with standard 0.796. In prioritizing the best new staff result it is done also with recruiting through the media, on the second statement average 3.85 with standard deviation 0.797.

One aspect that affects the achievement of the company's goals is e-selection. Selection process is important to a company because selection is the process of selecting the right human resources for a task or task of the company. (Munte, 2019). The result of the first statement that the hospital uses an online selection system at the time of recruitment of staff. Average 4.01 or is in the high category with a deviation standard of 0.877. Furthermore, in addition to the online system, the hospital also uses offline selection to see the ability of the prospective staff with an

### Table: Indicator Analysis

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Standardized loading factors</th>
<th>Factor Loading</th>
<th>Cronbach Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>We used an online selection system at the time of the recruitment.</td>
<td>0.775</td>
<td>14.290</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>In addition to the online system, we also use offline selection to be able to see the abilities of candidates.</td>
<td>0.800</td>
<td>14.815</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Our online selection system uses operational standards according to the criteria of the candidate we want.</td>
<td>0.758</td>
<td>13.901</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E – Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>We use e-hrm for informal and formal complaints.</td>
<td>0.707</td>
<td>12.827</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>E-HRM (e-training) is used to assess training needs.</td>
<td>0.782</td>
<td>14.363</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>With e-hrm training, we can improve the skills and performance of our employees.</td>
<td>0.777</td>
<td>14.275</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E – Evaluation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>We use e-hrm for informal and formal complaints.</td>
<td>0.789</td>
<td>14.523</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>e-HRM is used for performance assessment in our organizations.</td>
<td>0.753</td>
<td>13.693</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>All staff are evaluated online within a certain period of time.</td>
<td>0.796</td>
<td>14.652</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>E - Reward System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Our management rewards the best employees.</td>
<td>0.764</td>
<td>13.983</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>System rewards are done online and using applicable procedures.</td>
<td>0.754</td>
<td>13.770</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>System rewards are executed over a certain period of time.</td>
<td>0.769</td>
<td>14.086</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average Variance Extracted</td>
<td></td>
<td>0.591</td>
<td></td>
</tr>
</tbody>
</table>

Source: Test results of data analysis of authors using SPSS program Amos Graphic 23
average of 4.02 or to enter the high class with a standard deviation of 0.797. The online selection systems that the hospitals do use operational standards according to the criteria of the candidate staff who wish, indicate an average 3.99 or are in the best category with the deviation standards of 0.885. Success in carrying out recruitment and selection using digital technology means these advances have significantly introduced electronic HRM that runs a hybrid method process through websites and social media. (Amaliyah, Cahyo, Fajar Rachmanda Dwi; Reindrawati, 2022).

Results of statistical processing descriptive e-education which is an online learning system. In a conscious and planned effort to realize the learning and learning process so that employees who conduct education actively develop self-esteem. An overview of the indicator of the declaration of one hospital using e-HRM for online training and learning averages of 3.78 is in the category of both with the standard deviation of 0.830. Next on the statement of the second e-HRM used for the evaluation of performance in the hospital organization has an average of 3.77 and the default deviation is 0.809. Further on the third statement that all staff evaluated online within a certain period of time averages 3.71 with the defaults of 0.814.

Based on the survey results that hospitals have used e-HRM for informal and formal complaints, on the first statement averages 3.76 or exist in either category with a standard deviation of 0.783. Next on the second statement e-HRM is used for assessing performance in hospital organizations averages of 3.72 with standard deviations of 0.867. All staff evaluated online within a certain period of time is a third statement with an average of 3.71 exists in good category and standard deviation of 0.814.

The basic concept that a hospital does to motivate its employees to do their best. The results of the e-reward system indicator show that one management gives rewards to the best employee an average of 3.79 or is in either category with a standard deviation of 0.822. The statement of both hospitals implementing the reward system is done online and using the procedures applicable according to the table below. The second statement averages 3.77 with the standard deviations of 0.810. Next, the third statement of an average of 3.76 with a standard of 0.815 means that the hospital establishes a reward system implemented for employees over a certain period of time, as in table 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Estimate</th>
<th>P-Value</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1 Relational e-HRM Practices have a positive impact on Employee Performance</td>
<td>0.189</td>
<td>0.002</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>H2 Relational e-HRM Practices have a positive impact on Employee Productivity through Employees Performance</td>
<td>0.198</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>H3 Employee Performance has a positive impact on employee productivity</td>
<td>0.927</td>
<td>0.000</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Test results of data analysis of authors using SPSS Amos Graphic 23.

**H1: Relational e-HRM Practices have a positive impact on Employee Performance**

Health workers consider the ability of e-hrm practise to improve performance. Effective considerations on the significant positive influence e-hrm value have an impact of 8.9% on employee performance with a regression coefficient of 0.189, with a probability value less than 0.05, which is 0.002, and a CR value of 3.162.
H2: Relational e-HRM Practices have an impact on Employee Productivity through Employees Performance.

Based on the results of the tests obtained the explanation that the estimate of the relationship directly Relational e-hrm practice to employee performance with a regression coefficient of 0.198 with a probability value of 0.000 and a CR value of 1.559.

H3: Employee Performance memiliki pengaruh terhadap Employee Productivity

Employment performance has a significant impact on employee productivity with a regression coefficient of 0.947, with a probability value of < 0.05 (0.000) and a CR value of 10.333.

2. Difference Factory

The health forces involved in the relational e-hrm practise tests obtained an image that the value of each relationship showed significant. Significance values are obtained from the Structural Model Analysis Table showing that the CR value is in the Ha reception, a P value < 0.05 means that the higher the relational e-hrm practice, the higher employee performance. Health workers consider the ability of the relational e-HRM practice to improve performance. Effective consideration of the significant positive influence of the e-HRM value has an impact of 8.9% on employment performance with a regression coefficient of 0.189, with a probability value of less than 0.05, which is 0.002 and a CR value of 3.162.

In addition to benefits and challenges, functionality is also undergoing changes. These functions are influenced by the development of IT and related to recruitment and selection are sdm planning, sourcing, job placement, pre-selection process, interviews, internal search for new careers in the organization, reporting (including assessment of various indicators, predictions, and performance assessments) candidate suitability and talents, interaction with applicants (such as scheduling, providing information, responding and giving feedback), re-engagement, submitting job offers, receiving post-offerings (Ali, Krteska, Said, & Momin, 2023). The healthcare industry, with its capabilities and expertise, plays a major role in improving healthcare services to the community, which has an impact on increased productivity through positive performance support.

Research supports the hypothesis of a positive relationship between e-hrm use and employee performance (Mcdonald, Fisher, & Connelly, 2017) (Bondarouk, Harms, & Lepak, 2017). 2) Support the positive effect of use on individual employee performance. The limitations of sdm in the world of health at a time of pandemic are technologically predictable with e-hrm support. Human resource capabilities with certified training competencies are still limited. Based on the results of the test obtained an explanation that the estimate of the relationship directly Relational e-hrm practice to employee performance with a regression coefficient of 0.198 with a probability value of 0.000 and a CR value of 1.559.

The change in the pattern of the system of work has a very visible impact in the routine especially of public service in hospitals. The existence of e-hrm for some health care personnel is very helpful in the process of system transition. Employee performance plays a role in mediating relational e-hrm practices with employee productivity significantly. The better the IT-based service, the higher the healthcare productivity. Consistent research results explain that the indirect impact of the use of e-hrm on organizational performance is positive and statistically significant. (Nyathi & Kekwaletswe, 2023).Employee performance berpengaruh signifikan terhadap employee productivity dengan koefisien regresi sebesar 0.947, dengan nilai probabilitasnya < 0.05 (0.000) dan nilai CR sebesar 10.333.

The sustainable increase in the productivity of health care in hospitals as a result of organizational development based on effectiveness. There is an impact of employee performance in boosting or increasing employee productivity. The pandemic conditions give them a good hope of a working environment they can control. Employees feel comfortable working in a...
supportive environment where there is flexibility and where they can master the environment. Other factors such as job performance, contextual performance, counterproductive work behaviour have almost equal weight in employee performance and resulting performance. As far as overall employee productivity is concerned, employee performance has an impact on employee productivity. (Ahmad Nika & Bashir, 2023). According to Singh, staff performance consists of the actual output of an organization that is evaluated against the intended output. These standards are important factors that affect the effectiveness of staff performance and productivity. (Singh, 2019).

CONCLUSION

Practical e-hrm services in hospitals have a positive and significant impact on the level of healthcare performance. This shows that the correspondence between expectations and relational e-hrm practise support can determine employee performance. The higher and more comprehensive is the support of the e-HRM practices indicated with the human resource management management system and is related to the business processes supported by e-Recruitment as an interactive tool when recruiting new employees. Implementation of e-hrm brings positive benefits to the organization and efficiency of employees in quality daily operations so the level of employee performance increases.

Relational e-HRM practices that employees perceive will affect employee performance. Positive work culture with good e-hrm system support employees can do work with maximum satisfaction as well as great help in solving problems. The level of honesty and high performance among employees adds value to hospitals in building employee productivity. Employee Performance at the hospital can be defined as the result in terms of the quality and quantity of the work of the employee in performing his duties in accordance with the tasks given to give thus creating added value for employee productivity in the hospital. Expanding the concept model of productivity (Bennett, 1988), Mathis and Jackson (2011). From the mapping carried out, no research has been found to examine the influence of relational e-hrm practices, in improving employee productivity mediated by employee performance. This research succeeded in bridging the gap by finding empirical facts that simultaneously independently can affect employee Productivity.

Managerial implications are a consequence or direct consequence of scientific research findings as follows; 1) relational e-hrm practices have an influence on employee performance, 2) relative e-HRM practice has an impact on employees productivity through employees performance. Based on the findings: a) developing and improving e-hrm services, based on the performance of employees then the company (hospital) can become much more proactive in carrying out managerial duties within the organization of the company that will have a positive impact on the productivity of hospital health personnel. b) Improving the quality of e-HRM, which is mediated by the employee's performance has been shown to affect the productiveness of employees present in the company. As performance increases, it will yield positive results that increase the amount of external resources generated and affect the increase in hospital revenues. c) By developing employee productivity innovation through employee performance innovation, it will result in relational e-hrm practise innovation, optimum processes, sound management, which will become a competitive advantage for hospitals. d) Increased efficiency: Using data analysis to improve operational efficiency of SDM. e. Development of user-focused systems: Use design thinking approaches to ensure e-hrm systems are more user-friendly and tailored to the needs of the user.
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