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# HOSPITAL INFORMATION SYSTEM UTILIZATION MODERATES DIGITAL SELF-EFFICACY, PERSONAL-JOB FIT, AND WORK-LIFE BALANCE ON HEALTHCARE SERVICE PERFORMANCE

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**ABSTRACT**

Digital transformation in the healthcare sector has fundamentally changed the way healthcare workers provide services to patients. Hospitals are required to provide quality and efficient medical services through the implementation of an integrated hospital information system (GIS). This study aims to analyze the influence of digital self-efficacy, person-job fit, and work-life balance on healthcare worker performance in the digital era, with GIS as a moderating variable. This study uses an explanatory method to explain the causal relationship between variables. Digital self-efficacy, person-job fit, and work-life balance are conceptualized as independent variables in this study, healthcare worker performance as the dependent variable, and GIS as a moderating variable. The population consisted of nurses and midwives at Permata Keluarga Hospital. Using the Slovin formula, 190 respondents were obtained. Data were analyzed using Structural Equation Modeling (SEM) with SmartPLS version 4. The results show that digital self-efficacy, person-job fit, and work-life balance have a positive and significant influence on healthcare worker performance. The use of hospital information systems strengthens the relationship between work-life balance and healthcare worker performance, but does not strengthen the relationship involving digital self-efficacy and individual job fit.



## I. INTRODUCTION

Advances in information and communication technology have brought significant changes to the healthcare sector, particularly in hospital operations [1]. The utilization of hospital information systems (HIS) has become an integral component of nursing services, patient data management, and inter-unit coordination. In this context, nurses as frontline healthcare providers are increasingly required not only to possess strong clinical competencies but also digital competencies and the ability to adapt to increasingly complex job demands. As the work environment shifts toward digitalization, the concept of digital self-efficacy defined as confidence in one's ability to use digital technologies plays a crucial role in an individual's capacity to cope with digital transformation. For instance, a study involving nurses and nursing students in Italy reported that only 47.1% possessed adequate digital self-efficacy, with factors such as gender, educational background, and work experience significantly influencing digital confidence levels [2].

In the nursing context, the ability to operate information systems, utilize electronic data, and engage in digitalization processes strongly affects nurses' work practices and performance potential. In addition, the concept of Person Job Fit (PJF) the alignment between individual characteristics (abilities, needs, and values) and job demands and attributes has been identified as a key determinant of employee performance and well-being. A study conducted in Taiwan demonstrated that when Person–Job Fit is high, the negative effects of compassion fatigue on performance and organizational citizenship behavior can be mitigated [3]. In highly demanding hospital environments such as nursing, alignment between individual competencies and job demands is therefore essential to achieving optimal performance.

Furthermore, the issue of work–life balance (WLB) the balance between work demands and personal life has become increasingly relevant in the nursing profession, which is often characterized by overtime work, night shifts, and high emotional demands. A study conducted in Egypt among nurses found a significant positive correlation between work–life balance and person–job fit, indicating that better balance between work and personal life is associated with higher levels of Person–Job Fit [4]. A scoping meta-analysis further revealed that various socio-ecological factors, including the work environment, workload, and organizational policies, influence nurses' work–life balance on a global scale [5]. These findings suggest that work–life balance is not merely an additional variable but may also shape how other variables, such as person–job fit and self-efficacy, function in enhancing performance. In the digital era, digital self-efficacy, person–job fit, and work–life balance are interrelated and collectively influence nurses' performance.

However, these relationships may depend on how effectively hospital information system technology is implemented and utilized by nurses. Efficient use of HIS can enhance nurses' ability to access patient data, perform digital documentation, and communicate across units. Conversely, suboptimal systems or low levels of digital self-efficacy among users may hinder potential performance improvements. Although previous studies have examined self-efficacy, person–job fit, and work–life balance separately or in pairs within the nursing context, relatively few studies have integrated all three variables into a single model while simultaneously considering hospital information system utilization as a moderating variable. Therefore, this study was conducted at Permata Keluarga Hospital as an empirical investigation to address this gap, focusing on nurses as the study population and employing a Structural Equation Modeling–Partial Least Squares (SEM-PLS) analytical approach.

## II. THEORETICAL REFERENCE

### II.1 DIGITAL SELF-EFFICACY

According to Bandura, self-efficacy refers to an individual's belief in their capability to perform specific actions required to achieve desired outcomes [6]. In a digital context, digital self-efficacy, also referred to as computer or technology self-efficacy, denotes an individual's confidence in their ability to use digital technologies to accomplish work-related tasks. Social cognitive theory and the measurement of computer self-efficacy have been widely used as theoretical and empirical references in this field [7]. Self-efficacy influences individuals' intentions to adopt new technologies as well as their performance when using digital systems. Health workers with higher levels of digital self-efficacy tend to adopt hospital information system (HIS) features more rapidly and demonstrate better job performance, as digital technologies facilitate administrative and clinical tasks. Empirical studies and meta-analyses in educational and occupational contexts consistently report a positive relationship between computer self-efficacy and performance or technology acceptance outcomes [8].

### II.2 PERSON-JOB FIT

Person Job Fit refers to the degree of alignment between individual characteristics such as abilities, needs, and values and the demands and attributes of a job. The broader person environment fit theory explains this alignment and its implications for job satisfaction, organizational commitment, and performance. In the healthcare literature, Person–Job Fit has been consistently associated with job satisfaction, turnover intention, and professional effectiveness [9]. Empirical evidence from Xiao, focusing on medical and nursing professionals, demonstrates that a high level of Person–Job Fit is positively related to work engagement and task effectiveness, while simultaneously reducing turnover intention [9].

When job roles are well aligned with clinical competencies and workload demands, employee performance tends to be optimized. Conversely, a mismatch between individual capabilities and job requirements may lead to job-related stress, which in turn undermines performance quality. Furthermore, Person–Job Fit may also moderate how healthcare workers respond to technological change. For instance, individuals whose roles and competencies align well with digital task requirements are likely to experience a faster learning curve during the implementation of hospital information systems (HIS). Accordingly, in this study, Person–Job Fit is positioned as a key predictor of performance and a potential interacting variable in relation to hospital information system utilization [10].

### II.3 WORK-LIFE BALANCE

Work–life balance is defined as a condition in which individuals are able to meet both work-related demands and personal life responsibilities without experiencing excessive conflict or fatigue. In the healthcare sector, work–life balance is a particularly critical issue due to long working hours, shift-based schedules, and the high emotional demands associated with patient care [11]. Numerous studies have demonstrated that a healthy work–life balance is associated with higher work engagement, improved service quality, and reduced levels of burnout and clinical errors. Organizational interventions such as flexible scheduling, institutional support, and employee well-being programs have been shown to enhance work–life balance and, in turn, improve employee performance [11].

Technology plays a dual role in this context. When properly designed and implemented to reduce administrative workload, hospital information systems (HIS) can improve work–life balance by minimizing time spent on non-clinical tasks. However, when systems are overly complex or poorly implemented, they may generate techno-stress and ultimately exacerbate work–life imbalance. Therefore, the utilization of hospital information systems particularly in terms of system quality and ease of use becomes a critical factor in determining the direction and magnitude of their impact on work–life balance and employee performance [12].

### II.4 HEALTH WORKER PERFORMANCE

Health worker performance can be conceptualized across several dimensions, including task performance (clinical duties), contextual performance (prosocial behavior and collaboration), adaptive performance (the ability to adjust to changes), and counterproductive work behavior. Systematic literature provides a robust empirical framework for measuring performance in healthcare service settings.

Furthermore, Rhayha et al. define health worker performance as the work outcomes of healthcare professionals measured in terms of effectiveness, efficiency, service quality, timeliness, and responsibility in carrying out tasks through the use of hospital information systems (HIS) and digital technologies [13].

### II.5 HOSPITAL INFORMATION SYSTEM UTILIZATION

Zheng et al. define hospital information system (HIS) utilization as the extent to which healthcare professionals use hospital information systems (HIS/HMIS) effectively and efficiently to support task execution, clinical decision-making, and inter-unit coordination [14]. More broadly, hospital information system utilization can be understood as the level, manner, and quality of system use designed to support clinical, administrative, financial, and operational functions within hospitals by healthcare professionals and staff. Utilization encompasses not only whether the system is technically used, but also the degree to which its features are integrated into work processes, leveraged for clinical and managerial decision-making, and translated into tangible benefits for service quality, operational efficiency, and patient safety. This definition conceptualizes HIS as a socio-technical subsystem that integrates technology, processes, data, and human actors; therefore, system utilization must be examined from technical, organizational, and user-behavioral perspectives [15].

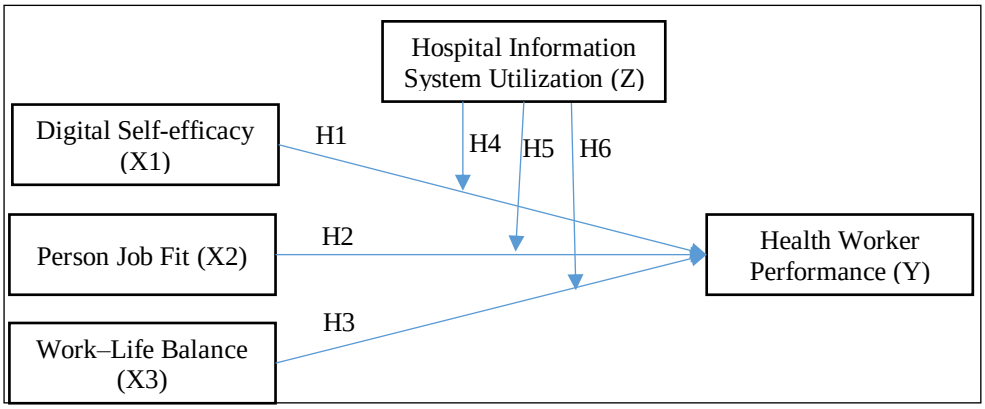


Figure 1: Theoretical Framework.
Source: Authors, (2026).

## III. MATERIALS AND METHODS

### III.1 DESIGN

This study employed an analytical cross-sectional research design. An analytical cross-sectional study is an observational approach conducted at a single point in time to identify relationships between independent variables (risk factors or predictors) and dependent variables (outcomes), without any intervention on the research subjects. In this study, the independent variables were digital self-efficacy, person–job fit, and work–life balance. Health worker performance served as the dependent variable, while hospital information system utilization was examined as the moderating variable. This study aims to analyze the effects of digital self-efficacy, person–job fit, and work–life balance on health worker performance in the digital era, with hospital information system utilization serving as a moderating variable.

Table 1: Operational Definition of Variables.

| Variable | Conceptual Definition | Operational Definition | Dimensions | Indicators |
|---|---|---|---|---|
| Digital Self-Efficacy | An individual's belief in their ability to effectively use digital technology (tools, applications, and information systems) to accomplish work tasks [15]. | The level of confidence of healthcare workers in mastering, operating, and utilizing hospital information systems and digital health technologies. | 1. Ability to use digital systems<br>2. Technical problem-solving<br>3. Ability to learn new technologies<br>4. Integration of technology into work | • Confident in operating HIS<br>• Able to resolve basic technical issues<br>• Able to learn new digital applications independently<br>• Belief that technology improves work efficiency |
| Person–Job Fit | The degree of alignment between an individual's abilities, needs, and values and job demands. | The compatibility between healthcare workers' characteristics and job requirements. | 1. Demand–Abilities Fit<br>2. Needs–Supplies Fit<br>3. Value Congruence<br>4. Job Role Fit | • Skills match job demands<br>• Job fulfills personal needs<br>• Alignment of personal and organizational values<br>• Suitability of job roles |
| Work–Life Balance | The ability to balance work and non-work roles without conflict [16]. | Healthcare workers' ability to manage work responsibilities and personal life harmoniously. | 1. Work Interference with Personal Life<br>2. Personal Life Interference with Work<br>3. Work/Personal Life Enhancement<br>4. Personal/Work Enhancement | • Work does not disrupt personal life<br>• Personal issues do not disrupt work<br>• Work supports personal development<br>• Personal life supports work performance |

| Variable | Conceptual Definition | Operational Definition | Dimensions | Indicators |
|---|---|---|---|---|
| Health Worker Performance | The quality, efficiency, and responsibility of healthcare service delivery [12]. | The effectiveness and efficiency of healthcare workers in performing their duties. | 1. Quality of Work<br>2. Quantity of Work<br>3. Timeliness and Efficiency<br>4. Responsibility and Reliability | • Accuracy of work results<br>• Work volume meets targets<br>• Tasks completed on time<br>• Compliance with procedures |
| Hospital Information System Utilization | The extent to which hospital information systems are used to support healthcare services [13]. | The level of effective and efficient use of HIS by healthcare workers. | 1. System Quality<br>2. Information Quality<br>3. Service Quality<br>4. System Use<br>5. User Satisfaction | • System reliability and ease of use<br>• Accuracy and timeliness of information<br>• IT support availability<br>• Frequency of system use<br>• Satisfaction with HIS |

Source: Authors, (2026).

### III.2 SAMPEL, SAMPLE SIZE, & SAMPLING TECHNIQUE

The population of this study consisted of all nurses and midwives at Permata Keluarga Hospital. The sample size was determined using the Slovin formula with a 5% significance level, resulting in a recommended sample of 190 respondents. The study participants were nurses and midwives at Permata Keluarga Hospital who met the established inclusion criteria.

### III.3 INSTRUMENT FOR DATA COLLECTION

The primary data in this study were collected through online questionnaire surveys administered via Google Forms to facilitate data collection. Secondary data were obtained from academic journals, books, and reputable online sources, which were used to support the theoretical framework, literature review, and other relevant research materials.

### III.4 DATA ANALYSIS

The validity of research findings is highly dependent on the measurement instruments employed. If the instruments used are not valid and reliable, the results will not accurately reflect the actual conditions under investigation. To address this issue, two types of assessments were conducted, namely validity and reliability tests, to ensure the consistency and accuracy of respondents' responses. Data analysis was performed using the Structural Equation Modeling (SEM) approach, with the measurement model evaluated using SmartPLS version 4.

## IV. RESULTS AND DISCUSSIONS

### IV.1 DATA DEMOGRAPHIC

The majority of respondents were female, totaling 148 individuals (77.9%), indicating that most nurses and midwives at Permata Keluarga Hospital are women. Furthermore, the largest proportion of respondents were aged 36–45 years, with 96 individuals (50.5%), suggesting that most nurses and midwives fall within this age range. In terms of work experience, 89 respondents (46.8%) had been employed for 2–4 years, indicating that the majority had moderate tenure. Lastly, most respondents reported holding a bachelor's degree, with 157 individuals (82.6%), demonstrating that the majority of nurses and midwives at Permata Keluarga Hospital have attained undergraduate-level education.

Table 2: Respondent Characteristics.

| Respondent Profile | Total | Frequency |
|---|---|---|
| **Gender** | | |
| Male | 42 | 22.1% |
| Female | 148 | 77.9% |
| Total | 190 | 100% |
| **AGE** | | |
| < 20 years | 1 | 0.5% |
| 21–35 years | 93 | 48.9% |
| 36–45 years | 96 | 50.5% |
| > 45 years | 0 | 0% |
| Total | 190 | 100% |
| **Length of Employment** | | |
| < 1 year | 59 | 31.1% |
| 2–4 years | 89 | 46.8% |
| 5–7 years | 40 | 21.1% |
| > 7 years | 2 | 1.1% |
| Total | 190 | 100% |
| **Highest Education Level** | | |
| Senior High School / Equivalent | 5 | 2.6% |
| Diploma | 25 | 13.2% |
| Bachelor's Degree | 157 | 82.6% |
| Postgraduate Degree | 3 | 1.6% |
| Total | 190 | 100% |

Source: Authors, (2026).

## IV.2 RESEARCH INSTRUMENT CALIBRATION

The assessment of data analysis requirements in this study was conducted using the results of the PLS algorithm estimation. Convergent validity was evaluated through factor loadings (outer loadings), while discriminant validity was assessed using cross loadings. Reliability was examined using composite reliability, Cronbach's alpha, and the Average Variance Extracted (AVE).

Table 3: Factor Loading Values of Research Variables.

| Variable | Indicator | Factor Loading Value | Criterion | Description |
|---|---|---|---|---|
| Digital Self-efficacy | DSL_1 | 0,918 | > 0,7 | Valid |
| | DSL_2 | 0,886 | > 0,7 | Valid |
| | DSL_3 | 0,928 | > 0,7 | Valid |
| | DSL_4 | 0,878 | > 0,7 | Valid |
| | DSL_5 | 0,919 | > 0,7 | Valid |
| | DSL_6 | 0,795 | > 0,7 | Valid |
| | DSL_7 | 0,899 | > 0,7 | Valid |
| | DSL_8 | 0,898 | > 0,7 | Valid |
| | DSL_9 | 0,896 | > 0,7 | Valid |
| | DSL_10 | 0,921 | > 0,7 | Valid |
| | DSL_11 | 0,940 | > 0,7 | Valid |
| | DSL_12 | 0,893 | > 0,7 | Valid |
| Person Job Fit | PJF_1 | 0,901 | > 0,7 | Valid |
| | PJF_2 | 0,842 | > 0,7 | Valid |
| | PJF_3 | 0,938 | > 0,7 | Valid |
| | PJF_4 | 0,891 | > 0,7 | Valid |
| | PJF_5 | 0,950 | > 0,7 | Valid |
| | PJF_6 | 0,913 | > 0,7 | Valid |
| | PJF_7 | 0,898 | > 0,7 | Valid |
| | PJF_8 | 0,938 | > 0,7 | Valid |
| | PJF_9 | 0,920 | > 0,7 | Valid |
| | PJF_10 | 0,872 | > 0,7 | Valid |
| | PJF_11 | 0,931 | > 0,7 | Valid |
| | PJF_12 | 0,955 | > 0,7 | Valid |
| Work-life balance | WLF_1 | 0,907 | > 0,7 | Valid |
| | WLF_2 | 0,886 | > 0,7 | Valid |
| | WLF_3 | 0,915 | > 0,7 | Valid |
| | WLF_4 | 0,908 | > 0,7 | Valid |
| | WLF_5 | 0,908 | > 0,7 | Valid |
| | WLF_6 | 0,926 | > 0,7 | Valid |
| | WLF_7 | 0,921 | > 0,7 | Valid |
| | WLF_8 | 0,918 | > 0,7 | Valid |
| | WLF_9 | 0,913 | > 0,7 | Valid |
| | WLF_10 | 0,904 | > 0,7 | Valid |
| | WLF_11 | 0,857 | > 0,7 | Valid |
| | WLF_12 | 0,918 | > 0,7 | Valid |
| Health Worker Performance | KTK_1 | 0,958 | > 0,7 | Valid |
| | KTK_2 | 0,902 | > 0,7 | Valid |
| | KTK_3 | 0,955 | > 0,7 | Valid |
| | KTK_4 | 0,935 | > 0,7 | Valid |
| | KTK_5 | 0,945 | > 0,7 | Valid |
| | KTK_6 | 0,942 | > 0,7 | Valid |
| | KTK_7 | 0,943 | > 0,7 | Valid |
| | KTK_8 | 0,942 | > 0,7 | Valid |
| | KTK_9 | 0,949 | > 0,7 | Valid |
| | KTK_10 | 0,878 | > 0,7 | Valid |
| | KTK_11 | 0,958 | > 0,7 | Valid |
| | KTK_12 | 0,820 | > 0,7 | Valid |
| Hospital Information System Utilization | PS_1 | 0,744 | > 0,7 | Valid |
| | PS_2 | 0,873 | > 0,7 | Valid |
| | PS_3 | 0,821 | > 0,7 | Valid |
| | PS_4 | 0,914 | > 0,7 | Valid |
| | PS_5 | 0,777 | > 0,7 | Valid |
| | PS_6 | 0,846 | > 0,7 | Valid |
| | PS_7 | 0,830 | > 0,7 | Valid |
| | PS_8 | 0,802 | > 0,7 | Valid |
| | PS_9 | 0,810 | > 0,7 | Valid |
| | PS_10 | 0,789 | > 0,7 | Valid |
| | PS_11 | 0,840 | > 0,7 | Valid |
| | PS_12 | 0,840 | > 0,7 | Valid |
| | PS_13 | 0,876 | > 0,7 | Valid |
| | PS_14 | 0,874 | > 0,7 | Valid |
| | PS_15 | 0,822 | > 0,7 | Valid |

Source: Authors, (2026).

The results indicate that all factor loading values for each indicator used to measure the research variables exceed the threshold of 0.7. This demonstrates that all indicators employed to measure Health Worker Performance are valid and have met the criteria for convergent validity. Therefore, all measurement items were retained and included in the analysis.]

Table 4: Average Variance Extracted (AVE) Results.

| Variable | AVE Value |
|---|---|
| Digital Self-efficacy | 0,807 |
| Person Job Fit | 0,834 |
| Work-life balance | 0,822 |
| Health Worker Performance | 0,861 |
| Hospital Information System Utilization | 0,692 |

Source: Authors, (2026).

The results indicate that all factor loading values for each indicator used to measure the research variables exceed the threshold of 0.7. This demonstrates that all indicators employed to measure Health Worker Performance are valid and have met the criteria for convergent validity. Therefore, all measurement items were retained and included in the analysis.

Table 5: Composite Reliability Results of the Research Model.

| Variable | Composite Reliability |
|---|---|
| Digital Self-efficacy | 0,807 |
| Person Job Fit | 0,834 |
| Work-life balance | 0,822 |
| Health Worker Performance | 0,861 |
| Hospital Information System Utilization | 0,692 |

Source: Authors, (2026).

The composite reliability results indicate that all constructs in the research model have composite reliability values above the recommended threshold of 0.60, with the lowest value of 0.692 for the Hospital Information System Utilization variable and the highest value of 0.861 for the Health Worker Performance variable. These results confirm that the research model satisfies the composite reliability criteria.

Table 6: Cronbach's Alpha Results of the Research Model.

| Variable | Composite Reliability |
|---|---|
| Digital Self-efficacy | 0,978 |
| Person Job Fit | 0,982 |
| Work-life balance | 0,980 |
| Health Worker Performance | 0,985 |
| Hospital Information System Utilization | 0,968 |

Source: Authors, (2026).

The Cronbach's alpha values of the research model indicate that all variables exceeded the acceptable threshold of 0.6, with the lowest value of 0.968 observed for the Hospital Information System Utilization variable and the highest value of 0.985 for the Health Worker Performance variable. These results confirm that the research model demonstrates satisfactory internal consistency reliability.

## IV.3 STRUCTURAL MODEL EVALUATION

The coefficient of determination is used to assess the extent to which the model explains the variance of the dependent variable. The value of the coefficient of determination ranges between 0 and 1, with values closer to 1 indicating greater explanatory power. The R-square ($R^2$) value reflects the proportion of variance in the dependent variable that can be explained by the independent variables specified in the model.

Table 7: Coefficient of Determination Test Results.

| Variable | Nilai R Square |
|---|---|
| Health Worker Performance | 0.982 |

Source: Authors, (2026).

The relationships among the constructs, as indicated by the R-square value, show that the R-square for health worker performance is 0.982. This indicates that 98.2% of the variance in health worker performance is explained by digital self-efficacy, person–job fit, and work–life balance.

Table 8: Path Coefficient, t-Statistics, and p-Values Results.

| | Original Sample | T Statistics | P-Values | Conclusion |
|---|---|---|---|---|
| Digital Self-efficacy -> Health Worker Performance | 0,280 | 3,353 | 0,001 | H1 Accepted |
| Person Job Fit -> Health Worker Performance | 0,348 | 3,354 | 0,001 | H2 Accepted |
| Work-life balance -> Health Worker Performance | 0,220 | 2,509 | 0,012 | H3 Accepted |
| Moderating Effect 1 -> Health Worker Performance | 0,062 | 0,591 | 0,555 | H4 Rejected |
| Moderating Effect 2 -> Health Worker Performance | 0,225 | 1,572 | 0,116 | H5 Rejected |
| Moderating Effect 3 -> Health Worker Performance | 0,348 | 3,077 | 0,002 | H6 Accepted |

Source: Authors, (2026).

The table above indicates that four hypotheses are supported, as their significance values are below 0.05. The results show that work–life balance has a significant effect on health worker performance when moderated by hospital information system utilization. However, digital self-efficacy and person–job fit do not have a significant effect on health worker performance when moderated by hospital information system utilization. Furthermore, digital self-efficacy, person–job fit, and work–life balance have a direct and significant effect on health worker performance.

## IV.4 DISCUSION

### IV.4.1 Impact Digital Self-efficacy on Health Worker Performance

The first hypothesis indicates that the path coefficient of 0.280, with a t-statistic of 3.353 and a p-value of 0.001, demonstrates that digital self-efficacy has a significant effect on health worker performance. This finding suggests that nurses with higher levels of digital self-efficacy are better able to adapt to information systems, achieve greater work efficiency, and reduce errors in patient care [16]. This result is consistent with the study by [17], which found that self-efficacy and professional competence are directly associated with nurses' job performance in technology-based hospital settings. These findings underscore the importance of digital training and the strengthening of self-confidence in enhancing health worker performance. Therefore, confidence in digital capabilities constitutes a fundamental foundation for improving performance in technologically advanced hospital environments.

### IV.4.2 Impact Person-Job Fit on Health Worker Performance

The second hypothesis indicates that the path coefficient of 0.348, with a t-statistic of 3.354 and a p-value of 0.001, demonstrates that Person–Job Fit has a significant effect on health worker performance. This finding implies that the alignment between nurses' competencies and job demands constitutes a dominant factor in enhancing performance. The result is consistent with the study by [18], which found that Person–Job Fit has a direct influence on job satisfaction and work performance. Similarly, [19] emphasize that congruence between individual values and skills and organizational requirements creates a more productive and performance-oriented work environment. These findings are further supported by [17], who report that a strong fit between professional competencies and job responsibilities is a key determinant of effectiveness and teamwork among nurses in hospital settings. With the support of integrated hospital information systems, this alignment further enhances work efficiency and the quality of patient care.

### IV.4.3 Impact Work-Life Balance Health Worker Performance

The third hypothesis indicates that the coefficient value of 0.220, with a T-statistic of 2.509 and a p-value of 0.012, demonstrates that work–life balance has a positive and significant effect on health worker performance. This finding suggests that nurses who are able to effectively balance their personal lives and professional responsibilities tend to exhibit higher levels of performance and job satisfaction. These results are consistent with the study by [20], which found that work–life balance is positively associated with better performance and higher job satisfaction among nurses in Malaysian hospitals. Similarly, [21] reported that work–life balance is positively correlated with productivity and organizational commitment among nurses. Therefore, work–life balance is a crucial factor in sustaining health worker performance in the fast-paced and highly demanding digital era.

### IV.4.4 Impact Moderating Effect 1 On Health Worker Performance

The analysis results indicate that Moderating Effect 1 has a coefficient value of 0.062, with a t-statistic of 0.591 and a p-value of 0.555 (> 0.05), leading to the rejection of the fourth hypothesis (H4). These findings indicate that the moderating variable, namely the utilization of the Hospital Information System, does not strengthen the effect of digital self-efficacy on healthcare worker performance.

### IV.4.5 Impact Moderating Effect 2 on Health Worker Performance

Moderating Effect 2 shows a coefficient of 0.225, with a t-statistic of 1.572 and a p-value of 0.116, indicating that the fifth hypothesis (H5) is rejected. This indicates that the fifth hypothesis (H5) is rejected. In other words, the utilization of the hospital information system does not strengthen the effect of person–job fit on healthcare worker performance.

### IV.4.6 Impact Moderating Effect 3 on Health Worker Performance

The sixth hypothesis indicates a coefficient value of 0.348, with a T-statistic of 3.077 and a p-value of 0.002, demonstrating that Moderating Effect 3 has a significant effect on health worker performance. These results indicate that the utilization of hospital information systems strengthens the relationship between work–life balance and health worker performance. This implies that achieving a balance between nurses' professional and personal lives becomes more feasible with the support of efficient digital systems. An effective hospital information system can reduce administrative workload, accelerate documentation processes, and enable health workers to allocate more time for rest and recovery. Further suggest that the use of digital systems can alleviate work-related stress and enhance the emotional balance of nursing staff [3]. In addition, a study by [20] in Malaysia confirms that nurses' work–life balance is significantly associated with higher levels of job satisfaction and professional performance, particularly in digital environments that facilitate time management. Therefore, the utilization of hospital information systems serves as an enabling mechanism to strengthen nurses' work–life balance and improve the quality of their performance. Accordingly, hospital information system utilization functions as a moderating factor that reinforces the positive relationship between work–life balance and nurse performance.

## V. CONCLUSIONS

Based on the research results, it can be concluded that there is no positive relationship between digital self-efficacy and personal-job fit on healthcare worker performance, with the use of hospital information systems as a moderating variable. Furthermore, there is a positive relationship between work-life balance and healthcare worker performance, with the use of hospital information systems as a moderating variable. Furthermore, digital self-efficacy, personal-job fit, and work-life balance on healthcare worker performance are also found. Based on the research findings, several recommendations are proposed for stakeholders, including the management of Permata Keluarga Hospital.

They are advised to develop regular digital training programs focused on nursing information technology skills, such as the use of Electronic Medical Records (EHR), digital documentation systems, and telemedicine. Hospital management should implement competency-based recruitment and placement policies to ensure that nurses' skills and values align with job demands. Management is encouraged to adopt flexible work schedules supported by information systems, allowing nurses to adjust work hours according to personal circumstances without compromising the quality of patient care. Continuous evaluation of the effectiveness of the Hospital Information System (GIS) should be conducted, including aspects of system usability, speed of access, and ease of reporting clinical data.

Hospital management should introduce digital performance-based incentives, such as recognition or rewards for nurses who actively use information systems to improve service efficiency. Hospital management should also introduce digital performance-based incentives to assess long-term changes in nurse performance as technology utilization increases. Furthermore, incorporating variables such as job satisfaction, digital literacy, or technological stress is recommended to broaden understanding of the relationship between psychological factors and digital healthcare worker performance. Comparative studies across hospitals with varying levels of digitalization are also recommended to examine the differences in the impact of hospital information systems on healthcare performance.

## VI. AUTHOR'S CONTRIBUTION

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## VIII. REFERENCES

[1] T. Carvajal, J. Avella, J. Evangelista Neto, and A. Guedes, "Energy management system. Case study: hospital of hearth disease", *JETIA*, vol. 2, no. 8, Dec. 2017.

[2] G. Conte, V. Simonetti, G. Cicolini, et al., "Digital self-efficacy and technological readiness among nurses and nursing students in Italy: A cross-sectional study," International Journal of Nursing Studies, vol. 141, p. 104555, 2025.

[3] T. Chu, "The moderating effect of person–job fit on the relationship between compassion fatigue and organizational citizenship behavior among nurses," Journal of Nursing Management, vol. 28, no. 3, pp. 521–529, 2020.

[4] F. M. M. Badran and D. A. Khalaaf, "Work–life balance and its relation to person–job fit among staff nurses," Evidence-Based Nursing Research, vol. 4, no. 3, pp. 86–93, 2022.

[5] I. N. Widayana, I. W. Suardana, and D. A. Mulyani, "Work–life balance and psychosocial well-being among Indonesian nurses: A systematic scoping review," Nurse Media Journal of Nursing, vol. 15, no. 1, pp. 12–28, 2025.

[6] A. Bandura, Self-Efficacy: The Exercise of Control. New York, NY, USA: W. H. Freeman, 1997.

[7] D. R. Compeau and C. A. Higgins, "Computer self-efficacy: Development of a measure and initial test," MIS Quarterly, 1995.

[8] I.-S. Chen, "Computer self-efficacy and learning performance," Computers in Human Behavior, 2017.

[9] Y. Xiao et al., "Person–environment fit and medical professionals' job satisfaction, turnover intention, and professional efficacy: A cross-sectional study in Shanghai," PLOS ONE, vol. 16, no. 4, pp. 1–14, 2021.

[10] M. Engin and F. Gürses, "Adoption of hospital information systems in public hospitals in Turkey: An analysis with the unified theory of acceptance and use of technology model," International Journal of Innovation and Technology Management, vol. 16, no. 6, Art. no. 1950043, 2019.

[11] T. Fukuzaki, N. Iwata, S. Ooba, S. Takeda, and M. Inoue, "The effect of nurses' work–life balance on work engagement: The moderating effect of affective commitment," Yonago Acta Medica, vol. 65, no. 3, pp. 230–239, 2022.

[12] J. Luo et al., "Role of perceived ease of use, usefulness, and financial strength on the adoption of health information systems: The moderating role of hospital size," Humanities and Social Sciences Communications, vol. 11, no. 1, p. 516, 2024.

[13] A. Rhayha, R. Hassan, and N. Mahmoud, “Health workers’ performance in the digital transformation era: The role of technology adoption and system usability,” Journal of Health Management, vol. 27, no. 2, pp. 145–160, 2025.

[14] F. Zheng, L. Xu, Y. Chen, and S. Zhang, “Determinants of clinicians’ utilization of hospital information systems for infection prevention and control: An extended DeLone and McLean model,” JMIR Medical Informatics, vol. 11, no. 5, e41562, 2023.

[15] A. Winter et al., Health Information Systems: Technological and Management Perspectives, 3rd ed. Cham, Switzerland: Springer, 2023.

[16] M. Alghamdi and G. D. Sideridis, “Corrected goodness-of-fit index in latent variable modeling using non-parametric bootstrapping,” Frontiers in Psychology, vol. 16, pp. 1453–1462, 2025.

[17] J. Smeds, A. Johansson, and M. Lundberg, “Professional competence, job fit, and digital self-efficacy among Nordic nurses,” Scandinavian Journal of Caring Sciences, vol. 37, no. 2, pp. 456–468, 2023.

[18] X. Chen, Y. Liu, and J. Zhang, “The impact of person–job fit on nurses’ job satisfaction and performance: The mediating role of organizational commitment,” Journal of Nursing Scholarship, vol. 55, no. 2, pp. 225–234, 2023.

[19] J. R. Edwards and D. M. Cable, “The value of value congruence,” Journal of Applied Psychology, vol. 94, no. 3, pp. 654–677, 2009.

[20] N. Hashim, R. Abdullah, and M. Rahman, “Work–life balance, job satisfaction, and performance among Malaysian nurses in the digital era,” Malaysian Journal of Nursing, vol. 15, no. 1, pp. 45–55, 2023.

[21] A. A. Akanni and C. A. Oduaran, “Person–job fit and work–life balance of female nurses with cultural competence as a mediator: Evidence from Nigeria,” Frontiers of Nursing, vol. 9, no. 1, pp. 81–86, 2022.