# THE INFLUENCE OF INFORMATION TECHNOLOGY ON THE PERFORMANCE EFFICIENCY OF EMPLOYEES AT TOTO KABILA REGIONAL PUBLIC HOSPITAL

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## ABSTRACT

This study aims to determine the effect of information technology on Employee Performance efficiency at the Toto Kabila Regional General Hospital, and analyse the extent to which the use of information technology can improve Employee Performance efficiency in the hospital environment. This research method uses a quantitative research approach, descriptive research type, using data collection techniques based on questionnaires. The results showed that based on the analysis of the statistical test Chi-Square carried out, it resulted in a Pearson Chi-Square value with a significance level of 0.000 ($p < 0.05$), which indicates a significant influence between information technology and Employee Performance efficiency at Toto Kabila Regional General Hospital. Thus, the null hypothesis ($H_0$) is rejected and the alternative hypothesis ($H_1$) is accepted, so it can be concluded that there is a positive and significant influence of the application of information technology on Employee Performance efficiency.

**Keywords:** Information Technology, Performance, Efficiency

## INTRODUCTION

In today's digital age , technology information play role crucial in the agency health , especially at home Sick . Development in technology information And communication has give significant influence on modern civilization , makes it possible organization For finish task with more fast , accurate , and Also efficient . Implementation System Information Management House Sick need decent financing Enough big , so that important For do analysis cost investment in order to be able to control various aspect about related finances . The use of SIMRS becomes very useful Because the more increasing needs House Sick For patient data management , which aims For optimize efficiency operational , speed up And increase accuracy treatment patients , as well as optimize management information (Effendy et al., 2024) .

Although information technology offers many benefits, its implementation in healthcare facilities still faces various obstacles. One of the biggest obstacles is the high cost of implementation. Implementing a management information system in hospitals requires significant investment. Besides cost, another common challenge is resistance to change. Many healthcare workers accustomed to manual systems find it difficult to adapt to new technology, especially if the training provided is inadequate [1].

Information technology (IT) plays a crucial role in data management, information

delivery, and communication processes across various sectors, including healthcare. In hospitals, IT is utilized to manage various healthcare support systems, from recording and processing patient data to coordination between service units (Effendy et al., 2024). According to Suci et al. (2024), information technology encompasses the use of hardware, software, and telecommunications networks to collect, store, and distribute information.

A House Sick is facility health complete which provides maintenance for patient in care hospitalization , care road , and maintenance emergency . Diversity services offered House Sick covers various type services , activities teach And research , as well as various level And specialization , making House Sick as institution professionals who run task technical And management health [2].

In healthcare, information technology plays a crucial role in improving service quality. The application of information management technology in hospitals encompasses various areas, such as patient data management, the use of electronic medical records, and the implementation of telemedicine services, which are now a crucial part of the healthcare system. A study by McKinsey et al. (2020) showed that hospitals that optimally integrate information technology can increase operational efficiency by up to 20% while reducing medical error rates by 30%. Therefore, a proper evaluation of information technology implementation strategies in hospital services is necessary to achieve work efficiency and ensure patient safety (Nursalim et al., 2024). The role of information technology in driving improvements in human resource

(HR) work is increasingly apparent in today's era of globalization and rapid technological advancement. The impact of information technology on the business environment has significantly impacted HR management developments across a wide range of organizations. Information technology supports career development, guidance, and HR performance management, enabling institutions to more efficiently manage and develop their performance in line with ever-increasing market needs (Effendy et al., 2024) .

The implementation of a Hospital Management Information System (SIMRS) is supported by five main components: human resources (HR), hardware, software, data, and networks. Of these five aspects, human resources, as the parties directly using the SIMRS, play a significant role in how quickly new technology is accepted. The success of SIMRS implementation is determined by the adoption process that occurs within the application. This process is part of human behavior. Each component of the technological device can be a source of challenges and cause obstacles in SIMRS implementation because the technological device influences the stages of obstacles or smooth implementation and its usability for individuals and organizations (Septiyani & Sulistiadi, 2022) .

The rapid development of information technology cannot be stopped. All aspects of human life must continuously adapt to changes in information and technology due to global demands (Utami et al., 2024). Although the healthcare sector requires a significant amount of information, its adoption remains lagging. Currently, information and communication technology (ICT) plays a role in information

management (Utami et al., 2024). Information technology (IT) has enabled innovations that can identify potential risks early and provide rapid and coordinated action in emergencies. These innovations include sophisticated risk management platforms and health and safety monitoring systems directly connected to wearable devices (Utami et al., 2024).

The Technology Acceptance Model (TAM) is a research model presented by Davis in 1985, which examines factors influencing the acceptance of computer technology. Researchers have utilized the TAM approach to identify employee intentions regarding technology adoption, in this case, the "PLN Daily" application (Pratama et al., 2022) .

System Information Management House Hospital (SIMRS) has objective main For presenting accurate data And accurate so that can become base in the process of taking decisions at every level of administration . Information the used start from stage planning , implementation , to activity supervision , control , and evaluation In environment House pain , application System Information Management House Sick (SIMRS) is functioning No only become administrative tools , but Also as means For increase efficiency , effectiveness , and professionalism . Through system this , performance employee can more optimal access service become more wide , and quality service House Sick can Keep going improved ( Ministry of Indonesian Health , 2013).

A Hospital Management Information System (SIMS) is a strategic policy that hospitals can implement to improve efficiency in service delivery (Fahrul Pratama and Purwanto, 2023). SIMMS is a

computer system that streamlines healthcare processes, such as administration and reporting, so they can be carried out in an integrated, precise, fast, easy, and accurate manner (Fahrul Pratama and Purwanto, 2023).

A Hospital Management Information System (HIS) is a system capable of integrating everything a hospital needs in each of its units, from data collection, processing, presentation, analysis, drawing conclusions, to data distribution. [5].

A hospital management information system is an extremely useful tool for managing hospital services. However, this system certainly has limitations, such as incorrect input data, which can result in inaccurate information. Certain constraints, such as technological limitations, budget constraints, external factors, conceptual limitations, and limited understanding, are aspects that need to be considered for system development. Good infrastructure and advanced technology must be supported by human resources. It is known that computerization development will not run optimally without a continuous development process. Information systems depend on good guidance, so if you want a computer-based system to function properly, you must first tidy up the manual system [6].

The Hospital Management Information System (SIMRS) is a technology-based application that functions to organize and process data in hospitals. All information related to hospital services and administration is collected and managed through this system. SIMRS was developed with the aim of connecting various information related to financial processes, administrative activities, and healthcare facilities. SIMRS implementation in

hospitals plays a crucial role because it can increase efficiency in patient care, support the productivity and performance of medical personnel, improve data accuracy, minimize the risk of medical errors, and ultimately increase patient satisfaction (Fahrul Pratama & Purwanto, 2023).

Based on the Regulation of the Minister of Health Number 82 of 2013, every hospital is required to implement the Hospital Management Information System (SIMRS) as part of the provision of health services. "The implementation of SIMRS is important because of the need for information to ensure that decisions are taken quickly, accurately, and reliably, as well as the need for systematic data processing for strategic decision making (Ministry of Health of the Republic of Indonesia, 2013).

Hospital management information systems are a highly useful tool for managing services in the healthcare sector. However, these systems also have limitations, such as incorrect data input, which can result in inaccurate information. Various limitations, such as technological limitations, limited funding, external factors, conceptual limitations, and limited understanding, are all things that must be considered when developing a system. Good infrastructure and sophisticated technology must be supported by reliable human resources. It is known that computerization cannot develop optimally without the prior development of manual systems. Information systems depend on good guidance, so if you want a computerized system to function properly, you must first improve the manual system. [6].

The primary benefit of a Hospital Management Information System is that it simplifies various service activities, both

medical and non-medical. This system utilizes an integrated network to connect all service components, allowing data on patient conditions to be obtained quickly, precisely, and accurately. The success of a Hospital Management Information System (MISRS) is not only determined by the technology used but also requires the involvement of all parties, including users, accessors, and hospital staff. Furthermore, organizational support, user satisfaction, and resource availability are also important factors in the development and implementation of a SIMRS. Adequate infrastructure and facilities are also essential [7].

Management information systems can be understood as a collection consisting of Various integrated components function to collect, process, store, and disseminate information. All of these activities are carried out to assist and strengthen the decision-making process and managerial activities within an organization or company. Through this system, managers can analyze problems, understand complex issues, and obtain valid and accurate information. Information system components include input, models, processes, output, data storage, and control mechanisms. The implementation of information systems enables planning, processing, monitoring, and data integration, which play a role in determining an organization's success (Presetya, 2024).

Aspects of the Hospital Management Information System (SIMRS): Performance Aspect Information/Data Aspect: SIMRS offers advantages in managing information needed by hospitals on a large scale by utilizing electronic devices. Economic Aspect: SIMRS is designed to reduce hospital operational costs effectively.

Control/Security Aspect: SIMRS is equipped with high security features to maintain patient confidentiality and privacy safely. Efficiency Aspect: Efficiency is the process of achieving predetermined goals with optimal results or outputs that meet expectations. Service Aspect: Services (SIMRS) have complex characteristics because they cover various aspects, ranging from medical, situational conditions, to the systems used. In its application to health services, SIMRS functions to improve the quality of hospital services and maintain patient satisfaction with the facilities provided (Dano et al., 2024).

[8] Data processing at home Sick own wide coverage And Enough complicated , because No only involving information medical patients , but also data that is administrative in operational House Sick .

Based on initial data observations obtained from interviews by researchers with officers at the Toto Kabila Regional General Hospital in the IT unit, information was obtained that 48 employees use SIMRS in the outpatient department. However, there are problems in the use of SIMRS, namely the limited number of devices/computers that need to be added and network problems that are often slow caused by unstable internet connections, weak signals, thus hampering the data access process and making digital activities slow or interrupted. Meanwhile, problems with applications that suddenly error usually occur because the application has not been updated, the device's storage capacity is full, or the incompatibility between the application version and the operating system, which causes the application to not run normally or even close itself when used. If network or application problems last for more than 10 minutes,

employees will use the manual system temporarily, and then copy the data to the system again if the network or application has returned to normal.

Based on the results of the observations above, the researcher is interested in conducting research related to the Influence of Information Technology on the Performance Efficiency of Employees at Toto Kabila Regional General Hospital.

## RESEARCH METHODS

### 1. Population And Sample

#### a. Population

(Amin Nur Fadila et al., 2023) stated that the population is all research objects analyzed, and all field data is recorded. In this study, the population is the total number of employees in the outpatient department at Toto Kabila Regional General Hospital, which consists of 48 people.

#### b. Sample

A sample is element small from something population considered represent moderate population researched (Amin Nur Fadila et al . , 2023).

On study this , used technique taking total sample . Sample obtained with use method taking non- probability sample . According to Sugiyono (2020), engineering This is method choose every member population in a way fair .

### 2. Technique Data collection

The basic information collected in this research will be processed through the following stages:

#### a. *Editing*

The process of checking and correcting collected data to ensure its accuracy, completeness, and consistency. This editing process aims to identify and

correct any errors or deficiencies in the data.

**b.** *Data Entry*

The process of transferring collected data into a computer or data analysis software. Data entry aims to... For converting manual data into a digital format that can be processed more carry on .

**c.** *Tabulating*

The process of organizing and presenting data in a form such as a table or graph to facilitate further data analysis and interpretation.

**3. Data analysis**

In the research process, researchers used univariate and bivariate analysis methods to manage the data obtained.

**a.** Univariate analysis is used to describe or provide an overview of the characteristics of a single variable being studied. This analysis helps understand data distribution, such as the number, percentage, average, or spread of a variable, before further analysis. The frequency distribution formula is:

P = F/N x 100%

Information:

P : Percentage

F= Frequency/number of respondents' answers

N= Number of respondents

**b.** dependent variables . The testing process used the *Chi-Square statistical test* , which was then analyzed using SPSS.

**a)** If the p-value <0.05, then H0 $_{is}$ rejected and H1 $_{is}$ accepted. This means that there is an influence between information technology and employee performance efficiency.

**b)** If the p-value > 0.05, then H0 $_{is}$ accepted and H1 $_{is}$ rejected. This means there is

no influence between information technology and employee performance efficiency.

**RESEARCH RESULT**

Based on research that has been done , researchers target House Sick General of Toto Kabila Region as location studies For evaluate influence implementation Technology Information to efficiency performance for employee House Sick the . On moment research that becomes sample that is existing employees in the care road totaling 48 people .

**1. Analysis Univariate**

**a. Frequency on table technology information**

Table Information technology variable data analysis

| Information Technology | | | |
|---|---|---|---|
| | Frequency | Percentage | Total |
| Good | 41 | 85.4 | 85.4 |
| Enough | 6 | 12.5 | 12.5 |
| Not enough | 1 | 2.1 | 2.1 |
| Total | 48 | 100 | 100 |

Based on the results of data analysis on the Information Technology variable, it was found that of the total of 48 respondents, the majority or 41 people (85.4%) gave an assessment in the "Good" category, then 6 people (12.5%) were in the "Enough" category, and only 1 person (2.1%) gave an assessment of "Poor".

**b. Frequency Table Efficiency Performance**

Table Data analysis of performance efficiency variables

| Performance Efficiency |
|---|

|  | Frequency | Percentage | Total |
|---|---|---|---|
| Tall | 43 | 89.6 | 89.6 |
| Currently | 4 | 8.3 | 8.3 |
| Low | 1 | 2.1 | 2.1 |
| Total | 48 | 100 | 100 |

Based on the results of the frequency analysis of the Performance Efficiency variable displayed in the table above, it is known that of the total of 48 respondents, the majority or 43 people (89.6%) are in the "High" Performance Efficiency category, then 4 people (8.3%) are in the "Medium" category, and only 1 person (2.1%) is in the "Low" category.

## 2. Bivariate Analysis

### a. Impact of Information Technology Frequency on Performance Efficiency

Table Frequency technology information to efficiency performance

| Information technology and performance efficiency | | | | | | |
|---|---|---|---|---|---|---|
| | | Pursuit efficiency | | | | |
| | | | Tall | Currently | Low | Total |
| Information Technology | Good | N | 39 | 2 | 0 | 41 |
| | | % | 95.1% | 4.9% | 0.0% | 100.0% |
| | Enough | N | 4 | 2 | 0 | 6 |
| | | % | 66,7% | 33,3% | 0,0% | 100.0% |
| | Kurang | N | 0 | 0 | 1 | 1 |
| | | % | 0,0% | 0,0% | 100.0% | 100.0% |
| Total | | N | 43 | 4 | 1 | 48 |
| | | % | 89,6% | 8,3% | 2,1% | 100.0% |

Based on the frequency table, the influence of Information Technology variables on Performance Efficiency is visible. Respondents who have the "Good" Information Technology category are 41 people, of which 95.1% have High Performance Efficiency, 4.9% have Medium Performance Efficiency, and none have Low Performance Efficiency. Meanwhile, for respondents with the "Sufficient" Information Technology category, there are 6 people, 66.7% of whom have High Performance Efficiency and 33.3% have Medium Performance Efficiency. Meanwhile, for the "Poor" Information Technology category, there is only 1 respondent, all (100%) have Low Performance Efficiency. Overall, of the 48 respondents, 89.6% have High Performance Efficiency, 8.3% have Medium Performance Efficiency, and 2.1% have Low Performance Efficiency. These results indicate that the better the implementation of Information Technology, the tendency is followed by an increase in Performance Efficiency.

### b. Frekuensi Uji *Chi-Square*

Tabel Frekuensi Chi-Square

| Chi-Square Tests | | | |
|---|---|---|---|
| | Value | df | Asymptotic Significance (2sided) |
| Pearson Chi-Square | 53.559[a] | 4 | 000 |
| Likelihood Ratio | 13.461 | 4 | .009 |
| Linear-by-Linear Association | 18.700 | 1 | .000 |
| N of Valid Cases | | 48 | |

Results Chi-Square test shows mark significance of 0.000, which means there is very influential significant between variables Technology Information And Efficiency Performance , because its value more small from limit significance 0.05 . With thus , it can concluded that second variables the each other influence . Besides that , the Pearson value obtained also 0.000, strengthen findings This Because is below p-value < 0.05 .

## DISCUSSION

### 1. Information Technology

Data analysis on the Information Technology variable shows that of the 48 respondents, the majority, or 41 people (85.4%), gave an assessment in the "Good" category, then 6 people (12.5%)

were in the "Sufficient" category, and only 1 person (2.1%) gave an assessment of "Poor". According to research conducted by [1]the use of information technology in the business world has a significant influence on how organizations manage human resources. The presence of this technology provides convenience in aspects of career management, training implementation, and employee performance evaluation. Thus, organizations can more optimally manage and improve workforce competencies to align with the dynamics and demands of the ever-changing market.

Thus, the researcher's assumption is that the implementation or utilization of Information Technology in the studied environment has largely been successful due to factors including system availability, user-friendliness, IT training, and technical support. As stated by [1]Information Technology (IT) is a crucial element that plays a role in data management, information delivery, and communication in various fields, including the health sector.

2. **Performance efficiency**

The results of the frequency analysis of the Performance Efficiency variable show that out of a total of 48 respondents, the majority or 43 people (89.6%) are in the High Performance Efficiency category, then 4 people (8.3%) are in the Medium category, and only 1 person (2.1%) is in the Low category. This finding shows that the majority of respondents gave an assessment of the level of performance efficiency in the organization or agency studied at a high level, while only a small portion

considered it medium or low. Efficiency in performance based on a study (Syam, 2020) is an optimal comparison between the tasks carried out and the outcomes obtained from the tasks that are in line with the target results.

Thus, the researcher's assumption is that performance efficiency is generally considered very good, as indicated by productivity, time, accuracy, and workload. This is indicated by the hospital providing high-quality services, improving service quality, and increasing patient satisfaction. As revealed by research [10], operational efficiency, data accuracy, and speed of service all have a positive impact on the quality of patient care. The majority of reviewed studies demonstrated a strong relationship between the implementation of a SIMRS and improved employee performance, with a significance value of $p < 0.05$, indicating a significant positive effect. Furthermore, user satisfaction is an important indicator demonstrating the benefits of SIMRS for employees and the improved quality of care received by patients.

3. **The influence of information technology on employee performance efficiency**

**Based on the results of the** *Chi-Square* test , a significance value of 0.000 was obtained, which means there is a very significant influence between the Information Technology variable and Performance Efficiency because the significance value is smaller than 0.05. The Likelihood Ratio value of 13.461 with a significance of 0.009 also indicates a significant influence between the two variables. According to Effendy et al.

(2024), Information Technology (IT) plays a crucial role in data management, information delivery, and supporting communication in various sectors, including in the health sector. In the hospital environment, IT is applied to manage various systems that support health services, from patient data processing to coordination between units or departments. Meanwhile, Syam (2020) explains that work efficiency is the optimal comparison between the tasks carried out and the results obtained, according to targets, both in terms of quality and quantity. Work efficiency describes efforts to use resources appropriately and economically in order to produce the greatest possible output.

Thus, the researcher's assumption is that information technology significantly influences the efficiency of employee performance in hospitals. By implementing a Hospital Management Information System (SIMRS), hospitals are able to improve the quality of healthcare services as well as operational efficiency. Hafni et al. (2025) stated that the use of SIMRS allows hospitals to manage services in a more structured manner and support optimal employee performance. This significantly improves employee performance in the healthcare sector. SIMRS contributes to operational efficiency, data accuracy, and speed of service, all of which have a positive impact on the quality of service to patients. The majority of studies reviewed show a strong relationship between SIMRS implementation and improved employee performance, with a significance value of $p < 0.05$, indicating a significant positive effect. In addition,

user satisfaction is an important indicator that shows the benefits of SIMRS for employees and improves the quality of services received by patients. Overall, SIMRS implementation has a significant positive impact on work effectiveness and the quality of healthcare services.

## CONCLUSION

The results of the research analysis on the influence of information technology on employee performance efficiency at Toto Kabila Regional General Hospital, which was tested using the SPSS application with the Chi-Square method, showed a significant influence. This can be seen from the significance value (p-value) of 0.000, which is smaller than the limit of 0.05 ($p < 0.05$). Thus, the null hypothesis ($H_0$) is rejected and the alternative hypothesis ($H_1$) is accepted, which confirms that the application of information technology has a significant impact on employee performance efficiency at Toto Kabila Regional General Hospital.

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