



FEASIBILITY STUDY OF IMPLEMENTATION OF ELECTRONIC ADMINISTRATION SYSTEMS IN HOSPITALS

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KEYWORDS	ABSTRACT
information systems, administration, electronics, hospitals.	The manual approach is no longer the best option as healthcare services get more complex. As a result, several hospitals are beginning to implement IT to get around challenges and improve the efficacy and efficiency of their operations. This study aims to evaluate whether electronic administrative information systems can be implemented in hospitals. This study is a qualitative descriptive one that uses a literature review methodology. The author's choice of data for this study is secondary data. The collected data will undergo descriptive analysis. Based on the research findings, numerous advantages can be gained from installing electronic administration information systems at hospitals, notwithstanding any challenges or difficulties. Because they can improve the effectiveness and efficiency of hospital services in registering and storing patient data, registering, recording inpatient medical records, recording doctor data, recording room data, and producing administrative reports that management is required for decision-making and patient medical record information for insurance claims, electronic administrative information systems in hospitals are practical to implement. This study implies that hospital administrators who utilize electronic administration systems can use them as a reference source.

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INTRODUCTION

Along with access to education and legal protection, receiving health services is one of Indonesia's population's fundamental rights (Harahap et al., 2022). About the effects of environmental changes brought on by recent global advances, health is a crucial problem. A division of public services, public health services are operated by the government as public service providers (Listiyono, 2015). As a provider of health services, the hospital has a responsibility to the community, particularly in the region it serves, and to offer high-quality medical care (Gass et al., 2023). In the meantime, the hospital offers subspecialty or tertiary medical services and specialist or secondary medical services (Tangdilambi et al., 2019). Hospitals must raise the calibre of their services in light of the accelerating technological advancement and fiercer competition (Hidayah et al., 2020). Quality is essential to an institution's longevity. Therefore, hospitals must always uphold the public trust by enhancing customer satisfaction through higher service quality (Mahfudhoh & Muslimin, 2020). Many currently operating hospitals try to win the public's trust by offering practical, high-quality services. Despite being a service sector component, regional public hospitals need better public perception compared to the quality of care provided by private hospitals (Supartiningsih, 2017).

Making medical records serves to help the attainment of efficient administration in hospitals in order to enhance patient care (Amran et al., 2022). Most hospitals employ a manual approach, from patient identification to report preparation. Each work unit's service activity data is stored on paper,

which takes up a lot of storage space and makes it challenging to locate the necessary data and information (Sanjaya et al., 2013). For instance, the ward's ability to determine costs is hampered by the need to wait for data on prescription prices provided to patients by the pharmacy, information on cost records from the laboratory, and, if a cashier has been paid a security deposit, the cashier's need to wait for data validity. This is because, under the traditional administrative system, the finance department collects medical spending data in stages beginning at the sub-district level. Not to mention the fact that some hospitals permit the head of the room to decide the patient's degree of ability and the amount of care or medication that is not charged to the patient, which introduces some subjectivity into the calculations made by each ward or room, deductions for each of these rooms must be provided, which would undoubtedly harm hospital revenue and unilaterally reduce incentives for health services, ultimately leading to double service standards (Handiwidjojo, 2017).

As healthcare services become more complicated, the manual system is no longer the best option. As a result, numerous hospitals are beginning to implement IT to get around the challenges they are now facing and improve the effectiveness and efficiency of their services (Sanjaya et al., 2013). The Hospital Management Information System (SIRS) can minimize the complexity of fragmentation of health services to achieve efficiency in patient health care. It can support hospitals to have a competitive advantage and be able to compete (Tulchinsky et al., 2023). This integrated system can support optimizing health services and increase efficiency (Fadilla & Setyonugroho, 2021). A similar study named "Analysis of the Implementation of the Utilization of the Hospital Management Information System (SIMRS) at Kardinah Tegal Hospital" was carried out by Setyawan (2016). The study used a qualitative descriptive methodology, and its primary emphasis was Tegal's kardinah General Hospital. This study looked at whether it would be feasible to install computerized administration systems at various hospitals. The study implies that hospital administrators utilizing electronic administration systems in hospitals can use it as a reference source. Based on the description above, it is critical to research whether adopting an electronic administrative information system in hospitals is feasible. This study aims to evaluate if electronic administrative information systems can be implemented in hospitals.

METHOD

This study is a qualitative descriptive one that uses a literature review methodology. The author's choice of data for this study is secondary data. Data collection involves gathering pertinent hypotheses from journals, books, records, and other pertinent sources. The collected data will undergo descriptive analysis. The descriptive analysis approach is used to gather the data and facts acquired, analyze them, and then deliver the necessary information (Nurlita, 2016). Literature study research activity was carried out by collecting information and data with the help of various materials in the library, such as reference books, results of similar previous research, articles, notes, and various journals related to the problem that you want to solve Sari & Asmendri (2020). The stages in the analysis of this research data are as follows:

1. Record findings related to research problems in each research discussion obtained in the literature and sources and or the latest findings
2. Integrate all findings, both theory and new findings
3. Analyze all the findings from various readings, relating to the shortcomings of each source and the strengths or the relationship between each of the discourses discussed in it.
4. Criticizing and providing critical ideas on research results on previous discourses by presenting new findings in collaborating different thoughts on research problems.

RESULT AND DISCUSSION

The hospital management information system (SIMRS) is specifically created to assist in managing and planning health programs. In contrast, the hospital information system (SIRS) integrates data collection, processing, reporting, and use of information needed to improve the efficiency and effectiveness of health services through better management at various levels of health services (Kartikasari, 2019). The success of the development and implementation of a Hospital Information System, according to Handiwidjojo (2017), will depend on the system's ability to function effectively and efficiently, which can be accomplished with a sound system and management support, training that supports the use process system, and improving the quality of the system's hardware and software.

Regarding medical and non-medical patient information, hospital information systems play a significant role in clinical and administrative services (Hariana et al., 2013; Mohammed et al., 2019). Clinical services like medical documentation and laboratory information system nursing have also resulted from using information system applications in numerous hospitals. In addition to registering and storing patient data, performing registration, recording inpatient medical records, recording doctor data, recording room data, and producing administrative reports needed by management for decision-making as well as patient medical record information for insurance claims are all included in this administrative function (Hariana et al., 2013; Handayani et al., 2020).

According to, there are three stages in adopting the electronic administration system at hospitals (Mehdipour & Zerehkafi, 2018). They include:

1. The user training phase

The availability of skilled, experienced employees and complete user engagement are the criteria that decide whether an information system will remain operational in the long run. SOPs are required for collecting, reporting, tracking down unreported data, data quality assurance, data summaries, and giving feedback. In order to successfully adopt electronic systems, end-user training is crucial (Mehdipour & Zerehkafi, 2018).

2. Setup of the system

According to research, an electronic administration system is necessary so that the administrator can log in, view the registration form, doctor's form, and pharmacist's form, manage patient data, view the current patient queue, manage doctor data, action data, drug data, polyclinic data, social security data, manage user data, delete all queues, and manage hospital data Handayani et al. (2020).

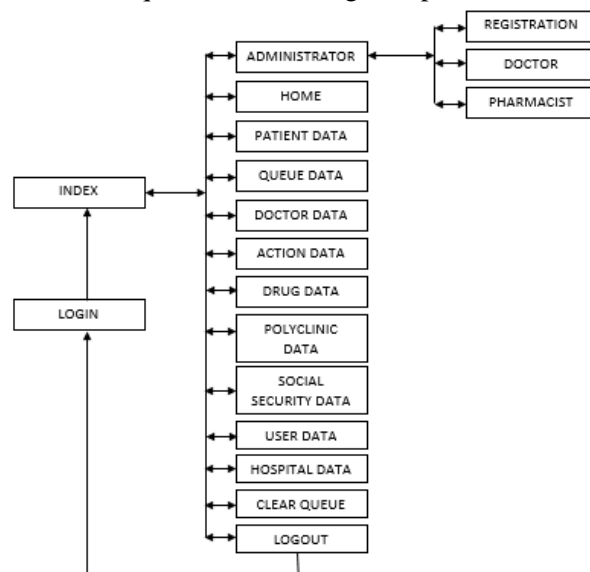


Figure 1. Hospital Management System Architecture

3. Upkeep and control of the system

Things like the type of data to be managed, whether the data is just the result of converting paper-based media to electronic form or data in the form of digital images and data that has been processed in video form, etc., must be taken into account during patient health information management activities. It should be highlighted that all hospitals can use data because of a uniform data format. Therefore, it would be preferable to transmit the relevant data in a specific format, such as Microsoft Excel. Hospitals can decide whether the information offered in patient health information services is all-encompassing patient data, such as all-encompassing patient data from the first patient registration until the end of the medical examination, or merely partial data, such as the findings of a patient's diagnosis. What matters is how data may be made accessible to all health institutions thoroughly. Information systems from different institutions can be integrated through a centralized health information management system, among other methods, to integrate patient health information. We can benefit from specific programs or applications. This system can offer a portal to grant access to information, allowing only specific users to access patient health data (Azizah & Setiawan, 2017). Treatment or upkeep was necessary in addition to management. Maintenance is a maintenance component; during this activity, a user or user performs routine maintenance on the information system to ensure that it continues functioning as intended.

The benefits of employing an information system for outpatient clinic administration can assist the clinic in providing health services of a higher calibre. Administrative information systems help minimize data management errors and duplication (Leventhal & Schreyer, 2020). Making reports that are more accurate and have a lesser chance of error can be facilitated and sped up with a computerized system (Handayani et al., 2020).

Several significant elements, including organizational factors, equipment factors, and knowledge factors, impact obstacles in using information systems. Previous research identified six barriers to the implementation of hospital information systems, including user barriers related to beliefs, behaviours, and attitudes; barriers to the profession of health service providers related to the environment and job specifications of health service providers; technical barriers related to computers and information technology systems; organizational barriers related to hospital management; and financial obstacles related to the implementation of hospital information systems. The two primary categories of the six barriers that stand in the way of the Hospital Information System's successful adoption are user and financial (Fadilla & Setyonugroho, 2021).

CONCLUSION

Based on the results of the research, electronic administrative information systems can be implemented in hospitals because apart from the many advantages that can be obtained from installing electronic administrative information systems in hospitals, regardless of the challenges or difficulties. Electronic administrative information systems in hospitals can increase the effectiveness and efficiency of hospital services in registering and storing patient data, registration, recording inpatient medical records, recording doctor data, recording room data, and preparing administrative reports needed by management for decision making and patient medical record information for insurance claims, electronic administrative information systems in hospitals are practical to apply. Suggestions for future research ideas can carry out analysis with a greater focus on clinical service information systems in hospitals.

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