

Effectiveness of the Implementation of Cash Receipt Accounting Information Systems with an Online Hospital System at HKBP Balige General Hospital

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ABSTRACT

A data processing system that can deliver sufficient information is necessary for hospitals to increase productivity. Thus far, a method that can streamline the cashier procedure has been discovered. This technique makes currency clearer and more concentrated. It's known as the online hospital system. Determining the degree of efficacy of using cash receipt accounting data both before and after utilizing the online healthcare system was the aim of this study. By gathering data, this study employs a descriptive qualitative methodology to characterize the research topic. Interviews, documentation, and observations were used to gather data. Three steps were taken in the data analysis process: data reduction, data presentation, and conclusion drafting. According to the analysis's findings, the Online Hospital's cash receipt system is more efficient than the manual one. This includes longer wait times for cash receipts, shorter wait times for patients waiting to pay, fewer administrative errors, lower paper costs, and more cost-effective labor. It can help lessen financial leakage and fraud. Nevertheless, the author believes that this approach has a flaw in that collateral cannot be refunded.

INTRODUCTION

In the context of globalization, many businesses within the healthcare industry are experiencing rapid growth. Hospitals function as healthcare institutions that offer a wide range of services, including inpatient care, outpatient care, and emergency services for all patients. At present, hospitals serve dual roles as both economic and social entities. They employ increasingly advanced medical technologies, which reflects this evolution in their functions. Alongside their high costs, the necessary equipment is also becoming more intricate.

Hospitals provide comprehensive and personalized health services, including emergency care, inpatient care, and outpatient care (Listiyono, 2015). The main objective of hospitals is to meet the needs and expectations of patients, with the aim of effectively addressing their health concerns. Patients recognize that hospitals are the only places capable of delivering the medical attention they require to recover and improve their well-being. They look for care that is suitable for their specific conditions and is delivered efficiently. In this context, the online patient admission system proves to be more effective than traditional manual methods. It helps minimize administrative errors, accelerates cash revenue calculations, streamlines patient payment processes, and enhances overall operational efficiency, leading to reduced payroll expenses.

LITERATURE REVIEW

Teisaho theory (which focuses on the efficiency of integrating accounting information systems with online hospitals) shows how hospitals can increase their financial management efficiency and healthcare performance by combining online hospital systems with a comprehensive cash-based accounting system.

According to the Accounting Information System

(TM Books, 2017) states that the system aims to provide information to decision-makers through the collection, documentation, storage, and processing of data. It consists of six key components: users, data, software, IT infrastructure, procedures and instructions, and internal controls.

The General Model of Accounting Information Systems

(Zamzami et al., 2017) outlines a universal model that is relevant to all accounting information systems, irrespective of the technological architecture or design employed by any organization.

Objectives of an Accounting Information System

(Endaryati, 2022) The delivery of information refers to how accounting information systems supply essential data for decision-making purposes. The aims of establishing such a system include:

1. Assisting in the smooth execution of daily operations by managing all relevant transactions to ensure efficiency and effectiveness.
2. Supplying accurate, relevant, and timely information that supports decision-making.

3. Gathering data that contributes directly to the decision-making process.
4. Although the quantity of required data may be limited, consistency and relevance are key in data collection.
5. Enhancing the effectiveness and accountability of financial management within the organization.
6. Enabling traceability and responsibility for how systems and financial transactions are managed.
7. Supporting the accounting department to ensure smoother operations and more reliable financial audits.
8. Ensuring adequate internal control to minimize risks in financial management activities.

Key Components of an Accounting Information System

(*Rahmawati, 2018*) An accounting information system generally consists of six essential elements:

1. **Input:** Tools and procedures for entering data, including the data itself – such as daily transaction entries.
2. **Model:** Logical or mathematical frameworks that process data and generate results.
3. **Output:** Final processed data, typically in the form of documents or reports, providing useful insights.
4. **Technology Component:** Tools and infrastructure that facilitate the collection, entry, and execution of data processing tasks.
5. **Database:** Centralized storage for information that users can access as needed.
6. **Control:** Safeguards designed to protect the system from threats and inefficiencies.

Accounting Information System Subsystems

(*TMBOOKS, 2017*) The system is comprised of four main transactional cycles:

1. **Expenditure Cycle:** Involves the procurement and payment processes for raw materials or resources.
2. **Production or Transformation Cycle:** Covers the conversion of raw materials into finished goods or services.
3. **Revenue Cycle:** Entails sales and the collection of payments from customers.
4. **Payroll Cycle:** Focuses on recurring tasks related to employee and personnel data management.

Data Flow Diagram (DFD)

(*Zainap Tuasamu, et al., 2023*) A DFD is a visual tool that maps out how data moves through an organization. It represents how data is processed and transmitted within a given system.

Flowchart

(Zainap Tuasamu, et al., 2023) A flowchart is a graphical method used to outline components of an information system in a logical and organized way. It tracks the movement of documents and depicts how business operations are carried out. Flowcharts help illustrate the balance among controls, procedures, and internal systems within an organization.

Cash Receipts

(Cahyaningsih, 2016) 1. The Role of Cash: Cash is a convenient and cost-free payment method frequently used in daily business operations. Receipt documents serve as evidence of cash being received. 2. Cash Receipt Accounting System: This includes recording, classifying, and summarizing cash receipt transactions from activities like cash sales. These records are essential for generating financial statements. 3. Authorization in Cash Transactions: Each cash transaction must comply with established procedures to ensure the legitimacy, timely collection, and secure storage of the cash received – aligned with amounts approved by external parties.

METHODOLOGY

Research Type and Characteristics

This study adopts a descriptive and qualitative approach. It focuses on cognitive and technological aspects to examine human-related issues and social phenomena. Emphasis is placed on the socially constructed nature of reality and the close interaction between the researcher and the study participants.

Research Site and Duration

The research will be carried out at HKBP Balige Regional Hospital, located at Jl. Gereja No. 17, Balige. The study is scheduled to begin in October 2024 and will continue until it is completed.

RESEARCH RESULT

Evaluation of Online Registration and Payment Procedures for Inpatient and Outpatient Services at HKBP Balige General Hospital Inpatient Services

Based on an interview with the hospital's administrative staff on May 5, 2025, at 09:00 AM WIB, the online registration and payment process for inpatient care at HKBP Balige General Hospital involves the following steps:

Registration Process:

Patients initiate the registration by accessing the hospital's official website or downloading its mobile application. They select the registration option and fill out the necessary form with details such as name, email, phone number, and password. After creating an account, they log in and choose the inpatient registration feature. Patients then complete additional required information, including full name, date of birth, national ID number, address, phone number, and medical history if relevant. They also select the preferred room and type of

care. Once completed, the registration is submitted, and a confirmation or registration number is sent via email or the app.

Payment Process:

Following a successful registration, patients proceed to payment. Multiple payment methods are offered, such as bank transfer, credit card, or digital wallet. Patients follow the guided instructions to complete the transaction and verify the total charges, including room and treatment costs. If paying by bank transfer, patients enter the hospital's account number and payment amount. For digital wallet or credit card transactions, the relevant payment details must be entered. After payment, patients are advised to save the receipt as proof. Prior to admission, they should prepare all necessary documentation, including the registration confirmation and payment proof. On the assigned date, patients must bring these documents for check-in at the hospital.

Outpatient Services

According to an interview with the administrative team on May 5, 2025, at 10:00 AM WIB, the online process for outpatient registration and payment includes the following steps:

Registration Process:

Patients begin by visiting the hospital's website or downloading its official app. They choose the registration menu and fill out a form with their personal details (name, email, phone number, and password). Verification may be required via email or SMS. Once the account is verified and logged in, patients select the outpatient registration option and provide complete personal information, including name, birth date, national ID number, address, phone number, and, if applicable, medical history. They then choose a doctor and schedule an appointment. After verifying all information, the registration is submitted, and a confirmation or registration number is sent via email or app notification.

Payment Process:

After registration, patients select the payment method of their choice – bank transfer, credit card, or digital wallet. They follow the steps provided to complete the transaction and confirm the total amount, which typically includes consultation and examination fees. For bank transfers, the destination account and payment amount are entered. For digital payment methods, patients input the necessary financial details. Once payment is made, the transaction proof should be saved. The hospital will send confirmation via email or the application. Patients must prepare and bring all relevant documents – including registration and payment confirmation – on the day of their appointment.

System Evaluation

An assessment of the online registration and payment system for both inpatient and outpatient services at HKBP Balige General Hospital reveals

several advantages and limitations. Advantages: 1. Convenient Access: Patients can register and make payments anytime and anywhere, eliminating the need for in-person visits and saving both time and effort. 2. Flexible Options: Patients have the freedom to choose doctors and consultation schedules that suit their needs, and select from multiple payment options. 3. Streamlined Data Management: The system enhances the hospital's ability to efficiently organize patient data and financial transactions, reducing administrative errors.

Challenges: Despite its benefits, the system faces a few drawbacks. These include heavy reliance on digital infrastructure, potential risks to data privacy, and accessibility barriers for certain patients. To address these issues, it is essential for the hospital to continually improve the platform by enhancing data security, ensuring wider accessibility, and providing sufficient technical support to assist patients as needed.

DISCUSSION

Following the evaluation of the elements associated with the payment system for inpatient and outpatient services at RSU HKBP Balige, several advantages and disadvantages have been identified. The advantages are as follows:

1. Convenient Access: Patients can register and process payments at any time and from any location without needing to physically visit the hospital, which saves both time and effort.
2. Flexibility: Patients can select their preferred doctors and consultation times that align with their needs, along with the option to pay through various available methods.
3. Streamlined Data Management: This system enables the hospital to handle patient information and transactions in a more organized and efficient way, minimizing the chances of administrative mistakes.

On the other hand, there are also weaknesses in this system that require attention, including reliance on technology, potential data security issues, and accessibility difficulties for certain patients. Consequently, it is crucial for the hospital to improve this system by prioritizing security measures, enhancing accessibility, and providing technical support for patients.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the observations, interviews, and analysis presented in the previous chapter, the following conclusions can be drawn:

1. The online registration and payment systems for both inpatient and outpatient services at HKBP Balige Hospital offer several advantages as well as some drawbacks. Among the key benefits are:
 - **Convenient Access:** Patients can register and make payments at any time and from any location, eliminating the need to visit the hospital in person and thus saving time and effort.

- **Greater Flexibility:** Patients have the option to choose their preferred doctors and appointment times and can utilize a variety of payment methods.
 - **Improved Data Management:** The system facilitates more organized and efficient handling of patient data and financial transactions, which helps reduce administrative errors.
2. The hospital's online system is relatively well-integrated with its cash-based financial information system. This is reflected in the clear delineation of tasks and departmental roles, the existence of comprehensive accounting records supported by the hospital's online and computerized systems, and well-defined financial reporting responsibilities. Nevertheless, there are areas that require improvement, particularly within the patient registration department. The payment process remains unclear and can be confusing. To address this, the development of data flow diagrams and process charts is recommended to simplify the presentation of accounting information. Furthermore, the hospital's payment partner, BRI Bank, currently does not support full payments and only accepts partial deposits, which limits efficiency.
 3. Since the adoption of the hospital's online system, the cash accounting information system has become significantly more effective in terms of time, cost, and labor. Therefore, this system is highly suitable for improving operational performance, and the hospital has implemented several strong internal control mechanisms as a result.

Suggestions

Recognizing the limitations and challenges encountered in this research, the following suggestions are proposed for future improvements:

1. The online registration and payment processes for both inpatient and outpatient services still face certain challenges, such as dependency on technology, data security risks, and limited access for some patients. It is essential that the hospital continues to enhance the system by strengthening its security features, improving accessibility, and offering technical support for users.
2. The aspects of the system that are already working effectively should be further refined and optimized to help HKBP Balige Hospital achieve its goal of delivering high-quality healthcare and financial services, thereby establishing itself as a professional and reputable institution.
3. The registration department should improve its service quality to ensure greater patient satisfaction. Additionally, the hospital must develop a clear and straightforward payment procedure to better support users of the accounting information system.

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