

## Digitalization In The Role Of Budgetation In Increasing The Effectiveness Of Hospital Performance

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| Article Info   | Abstract  |
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| Received May 12, 2024<br>Revised June 14, 2024<br>Published June 20, 2024                                  | <i>Digitalization has helped hospitals improve the effectiveness of their performance in budgeting by collecting more accurate data, analyzing data for better projections, reducing operational costs, monitoring real-time budget usage, and facilitating better collaboration between departments. This paper aims to find out and understand the influence of budgeting on the effectiveness of hospital performance in the current era of digitalization. In this paper the author used a literature review method using library media, books and various electronic media sources which are currently developing rapidly. In this era of digitalization, it is important for hospitals to consider the use of information technology and financial management software for effective performance. By creating budgets that suit needs and monitoring market trends and performance, hospitals can achieve efficiencies and improve service quality. Accurate and effective budgeting is very important to improve hospital performance in the era of digitalization</i> |
| <b>Keywords :</b><br><i>Digitalization; The Role Of Budgetation; Effectiveness Of Hospital Performance</i> |   |

### INTRODUCTION

A hospital is a complex organization where various activities require serious handling. Hospital activities are closely related to services, finances, regulations, patient satisfaction, management and community conditions. Hospital activities also require budgeting which involves the allocation of funds to finance various operational aspects and health services. Budgeting is the process of planning, determining and controlling the use of financial funding sources in an organization or government.

In the era of digitalization, budgeting greatly influences hospital performance. In the digital era, information and communication have become very important for hospital operations, including budget and performance management. Information technology has

changed the way hospitals manage data, deliver services, and coordinate their operations. The use of digital technology in hospitals can increase efficiency, improve service quality, and optimize overall performance. However, the use of digital technology also requires adequate budgeting to ensure successful implementation.

This paper discusses the influence of budgeting on the effectiveness of hospital performance in the era of digitalization. In the era of digitalization, information and communication technology has played an important role in hospital management. Effective budgeting is a critical factor in ensuring optimal hospital performance. This paper explores how the use of digital technology and appropriate budgeting can increase the effectiveness of hospital performance.

Formulation of the problem

1. What is the role of digitalization in hospital operations in terms of budgeting?
2. What budgeting components are affected by digitalization in hospitals?
3. How can the use of digital technology in budgeting increase the effectiveness of hospital performance?
4. What is the role of effective budgeting in hospital performance in terms of improving services and controlling costs?
5. How can budgeting efficiency and accuracy be improved with the adoption of digital technology in hospitals?

## **METHODS**

In this paper the author used a literature review method using library media, books and various electronic media sources which are currently developing rapidly.

## **RESULTS AND DISCUSSION**

### **A. The Role of Digitalization Budgeting on the Effectiveness of Hospital Performance**

A budget is a plan prepared systematically in the form of numbers and expressed in monetary units which covers all of the Company's activities for a certain period of time (a certain period in the future). In hospital budgeting, digitalization has a significant impact on the effectiveness of hospital performance in terms of

budgeting. The following are several things that influence hospital digitalization budgeting:

1. More accurate data collection and analysis

Where with digitalization, hospitals can collect and store data electronically. The data can include patient data, financial data, inventory data, and more. By collecting this data electronically, hospitals can avoid human error in data collection, reduce printing and physical storage costs, and increase the accuracy of information used in the budgeting process.

2. Predictive analytics

By leveraging data analytics and artificial intelligence technology, hospitals can analyze historical data to identify trends and patterns that can be used to make more accurate budgeting projections in the future. For example, hospitals can analyze historical data about costs for patients with certain health conditions, patterns of emergency department visits, or medication use to inform their budgeting for future periods.

3. Reduction of operational costs

Digitalization can help reduce operational costs in a hospital. For example, the use of a hospital information management system can automate administrative processes, reduce paper and labor requirements, and increase overall operational efficiency. This can lead to significant cost savings and help hospitals allocate resources more effectively within their budgets.

4. Real-time monitoring

With the right digital system, hospitals can monitor in real-time their budget usage. Hospitals can track expenses and revenues in real time, identify areas where overspending is occurring, or recognize opportunities to optimize budget use. By having better visibility over their financial data, hospitals can take appropriate action quickly to optimize their budget use.

5. Enhanced collaboration

Digitalization also facilitates better collaboration between departments within a hospital. For example, the finance department can easily communicate and share data with operations departments or medical departments to understand their needs and challenges in terms of budget. This better collaboration can help in more effective budget planning and align spending with organizational goals and priorities.

Overall, digitalization has helped hospitals improve the effectiveness of their performance in budgeting by collecting more accurate data, analyzing data for better projections, reducing operational costs, monitoring real-time budget usage, and facilitating better collaboration between departments.

#### B. Hospital Budgeting Components Affected by Digitalization

Digitalization has changed many aspects of hospitals, including the budgeting process. Some budgeting components that can be affected by digitalization in hospitals include:

1. Hospital Information Management System (HMIS): Digitalization enables the use of an integrated HMIS to manage patient data, including financial information such as medical costs, payment receipts, and insurance. HMIS can produce accurate and real-time financial reports, thereby helping in better budget planning.
2. Inventory Management System: With the adoption of a digital-based inventory management system, hospitals can track their inventory of medicines, medical equipment and other materials more efficiently. This allows hospitals to optimize spending, avoid waste, and plan budgets more effectively.
3. Financial and Accounting Systems: Digitalization allows the use of sophisticated financial and accounting systems to manage hospital budgets. With this system, payment, payroll and bookkeeping processes can be carried out more efficiently and accurately.
4. Supply Chain Management: Digitalization is also affecting supply chain management in hospitals. With a digital-based supply chain management system, hospitals can increase procurement efficiency, reduce logistics costs, and speed up the ordering and delivery process.
5. Data Analysis: Digitalization enables more comprehensive data collection and analysis in hospitals. Using sophisticated data analysis tools, hospitals can identify spending trends, analyze resource consumption patterns, and optimize budgets based on these findings.
6. Telemedicine: Digitalization has enabled the development of telemedicine, where patients can receive treatment remotely via digital communication technology. The use of telemedicine can impact budgeting components such as savings on patient travel costs, operational costs for physical facilities, and the need for special equipment to provide remote services.

The impact of digitalization on budgeting components in hospitals can vary greatly depending on the scale and level of technology adoption carried out by the hospital. However, in general, digitalization can help improve efficiency, optimize spending and enable better budget planning.

### C. Use of Digital Technology in Budgeting Which Can Increase Hospital Effectiveness

The use of digital technology in budgeting can provide several significant benefits in increasing the effectiveness of hospital performance. Here are some ways in which digital technology can be used in budgeting to achieve those goals:

1. **Data management and analysis:** Digital technology allows hospitals to collect, store and analyze financial data more efficiently. With an integrated financial information management system, hospitals can track and monitor expenses and income in real-time. Accurate and detailed data analysis allows hospital management to make better budgeting decisions based on identified trends and patterns.
2. **Budgeting process automation:** The use of digital technology allows the automation of most budgeting processes, such as invoice processing, expense recording, and salary processing. This can save time and resources, and reduce the risk of human error. Hospitals can use integrated budgeting software to manage budgets, control expenses, and monitor financial performance effectively.
3. **Prediction and forecasting:** Digital technology can help hospitals make predictions and forecasts regarding future budget needs. By using sophisticated algorithms and mathematical models, budgeting systems can accurately predict funding needs for various operational aspects, such as patient care costs, the need for medicines and medical equipment. This allows hospitals to allocate resources efficiently and avoid budget shortfalls or waste.
4. **Cost reduction and efficiency:** The use of digital technology in budgeting can help hospitals identify areas where costs can be reduced and efficiency can be increased. By looking at comprehensive data and analytics, hospitals can identify inefficient or unnecessary spending trends, optimize resource use, and reduce waste. This can help hospitals allocate budgets more appropriately and save operational costs.
5. **Transparency and accountability:** The use of digital technology in budgeting can increase transparency and accountability in hospital financial management. With

an integrated system, all financial and budget data can be easily accessed by authorized parties. This helps promote accountability and minimize the risk of corruption or misuse of funds. Apart from that, transparency also helps stakeholders, such as the government, supervisors and patients, to monitor and evaluate hospital financial performance.

The use of digital technology in budgeting can give hospitals a competitive advantage in managing their finances more effectively. By using integrated systems, automatic data processing, and accurate analysis, hospitals can optimize budget allocations, increase operational efficiency, and provide better health services for patients.

D. The role of effective budgeting in hospital performance in terms of improving services and controlling costs

Effective budgeting has a significant influence on hospital performance, especially in terms of improving services and controlling costs. Here are some positive influences of effective budgeting:

1. Improved services: Effective budgeting allows hospitals to allocate resources wisely and prioritize important aspects of care. By identifying areas that need improvement, hospitals can allocate adequate budgets to train staff, update facilities, and introduce new medical technology. This will help improve operational efficiency, improve service response times, reduce queues and increase patient satisfaction.
2. Cost control: Effective budgeting helps hospitals in controlling operational costs and optimizing the use of resources. By conducting a systematic cost analysis, hospitals can identify areas that need to save, minimize waste, and reduce unnecessary costs. Additionally, effective budgeting also helps in negotiating contracts with suppliers, identifying more affordable alternatives without sacrificing quality, and managing inventory better.
3. Innovation and development: Effective budgeting leaves room for innovation and development in hospitals. By allocating sufficient resources to medical research, technology development, and other innovative programs, hospitals can improve the quality of care and offer better care to patients. Effective budgeting can also support the introduction of effective quality management systems, such as ISO

certification or hospital accreditation, which can increase public trust and hospital competitiveness in the market.

4. Performance measurement: Effective budgeting allows hospitals to measure performance systematically. By using the budget as a measuring tool, hospitals can monitor and evaluate the achievement of predetermined goals. By knowing performance indicators such as operational efficiency, increased productivity, reduced costs, and patient satisfaction levels, hospitals can identify areas for improvement and make data-driven decisions.

In order to achieve this positive influence, it is important for hospitals to adopt effective budgeting practices, such as conducting careful budget planning, involving stakeholders in the budgeting process, managing the budget tightly, and conducting regular monitoring and evaluation to ensure appropriate use of the budget. efficient and effective.

#### E. Budgeting efficiency and accuracy can be improved by adopting digital technology in hospitals

Adoption of digital technology in hospitals can significantly improve budgeting efficiency and accuracy. Here are some ways in which digital technology can make a positive contribution:

1. Data Processing Automation: Digital technology enables faster and more accurate data processing. With an integrated hospital information management system (HIS), financial and operational data can be accessed easily and processed automatically. This reduces the need to enter data manually, avoids human error and saves time.
2. Real-time Monitoring: With the adoption of digital technology, hospitals can monitor expenses and income in real-time. This allows management to quickly identify and address budgeting problems, such as unplanned expenses or low revenues. Real-time data also helps in more accurate decision making and supports more effective budget control.
3. Data Analysis: Digital technology allows hospitals to analyze financial data in more depth. By using data analysis tools such as big data and artificial intelligence, hospitals can identify spending trends, optimize budget processes, and identify potential areas for spending efficiencies.

4. **E-Procurement:** Adoption of an e-procurement system allows hospitals to purchase and procure goods and services electronically. With e-procurement, hospitals can utilize online platforms to compare prices, manage contracts, and make purchases efficiently. This process can reduce procurement costs, speed up procurement times, and ensure transparency in spending.
5. **Inventory Management:** Digital technology allows hospitals to better manage inventory. With the adoption of a technology-based inventory management system, hospitals can track real-time stock of medicines, medical equipment and other items. This helps avoid waste, reduces the risk of inventory shortages, and optimizes resource use.
6. **Reducing Paper and Manual Processes:** With the adoption of digital technology, hospitals can reduce paper use and eliminate error-prone manual processes. For example, the use of electronic documents, such as e-invoices and e-receipts, can replace physical printed results and simplify the accounting process. Additionally, the use of digital communication tools, such as email and internal messaging systems, can increase the efficiency of communication between departments.

By adopting digital technology in hospitals, budgeting efficiency and accuracy can be improved. This results in more effective financial management, cost savings, and better use of resources. In addition, the adoption of digital technology also helps hospitals to adapt to rapid changes in the healthcare industry and improve services to patients.

## **CONCLUSION**

In this era of digitalization, it is important for hospitals to consider the use of information technology and financial management software for effective performance. By creating budgets that suit needs and monitoring market trends and performance, hospitals can achieve efficiencies and improve service quality. Accurate and effective budgeting is very important to improve hospital performance in the era of digitalization. By using data and technology to create accurate budgets, hospitals can effectively monitor their performance and identify areas of need.



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