

## Optimisation of SIMRS Usage for Smooth Internal and External Reporting at Bogor Islamic Hospital

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### ABSTRACT

The Hospital Management Information System (SIMRS) plays a strategic role in facilitating effective internal and external hospital reporting. Accurate, timely, and integrated reporting is essential for managerial decision-making and for fulfilling reporting obligations to external stakeholders, including the Health Office and BPJS Health. This study aims to analyse the optimisation of SIMRS utilisation in supporting the efficiency of internal and external reporting at Bogor Islamic Hospital. This research adopts a qualitative descriptive approach, with data collected through observation, in-depth interviews, and document analysis. The findings indicate that the implementation of SIMRS has improved the efficiency of reporting processes. However, several challenges persist, including limited user understanding, suboptimal integration across units, and continued reliance on manual data input. The optimisation of SIMRS—through strengthening human resource competencies, enhancing system functionality, and reinforcing managerial commitment—has been shown to improve the effectiveness of both internal and external reporting processes. It can be concluded that optimising SIMRS utilisation positively impacts the efficiency and reliability of hospital reporting and should be continuously developed to support service quality and good hospital governance.

**Keywords:** Hospital Management Information System (SIMRS); reporting efficiency; information systems optimisation; hospital management; healthcare information systems

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### INTRODUCTION

The advancement of information technology in the healthcare sector has led to significant transformations in hospital service systems. One of the key innovations supporting operational effectiveness and accountability is the Hospital Management Information System (SIMRS). This system integrates hospital management activities, including medical services, patient administration, medical records, financial management, and both internal and external reporting, within a unified electronic platform.

The Indonesian government, through Minister of Health Regulation No. 82 of 2013 concerning Hospital Management Information Systems, mandates that all hospitals implement an integrated, digital-based management information system to enhance service quality and managerial efficiency. Despite this regulatory framework, several practical challenges remain, particularly regarding inconsistencies between reporting formats and user requirements, as well as limitations in data extraction features that do not fully support reporting needs.

For example, in the daily outpatient census feature, patients with private payment guarantees are still recorded using patient names rather than guarantee categories in extracted reports. Moreover, the absence of the patient's National Identification Number (NIK) in reporting outputs presents a significant limitation, particularly for external reporting purposes where such data are essential.

Bogor Islamic Hospital is among the healthcare institutions that have implemented SIMRS to support administrative processes and healthcare service delivery. The system is expected to streamline the preparation of internal reports—such as financial statements, medical records, and unit performance reports—as well as external reports submitted to the Health Office and the Ministry of Health. However, the effectiveness of SIMRS depends heavily on the extent to which its functions are optimised, encompassing technological capabilities, human resource competencies, and managerial support.

Therefore, this study seeks to examine the optimisation of SIMRS utilisation at Bogor Islamic Hospital, identify enabling and constraining factors, and assess its impact on the efficiency of internal and external reporting processes. This research is expected to contribute to the development of healthcare information systems and to provide practical recommendations for improving SIMRS implementation.

## METHOD

This study employs a qualitative research design, using a case-study approach. This methodological choice is intended to facilitate an in-depth understanding of how the implementation and optimisation of the Hospital Management Information System (SIMRS) influence the efficiency of internal and external reporting at Bogor Islamic Hospital.

The qualitative approach enables the exploration of participants' experiences, perceptions, and challenges in using the system. The study involves key stakeholders, including hospital management, medical records personnel, finance staff, information technology personnel, and reporting officers. According to Creswell (2018), qualitative research is appropriate for examining the meanings individuals ascribe to complex and contextual phenomena. Furthermore, the case study approach enables a comprehensive investigation of a phenomenon in its real-life context (Yin, 2014).

Data were collected through direct observation, semi-structured interviews, and document analysis. This methodological framework enables a thorough exploration of strategies, challenges, and practices for optimising SIMRS to support accurate, efficient, and compliant reporting processes.

## RESULTS AND DISCUSSION

The findings of this study are analysed using the DeLone and McLean Information System Success Model (2003; updated 2021), which identifies six dimensions of information system success: system quality, information quality, service quality, system use, user satisfaction, and net benefits.

The results indicate that the system quality of SIMRS at Bogor Islamic Hospital is relatively satisfactory, as demonstrated by the integration of modules across units and the comprehensive utilisation of the system. The system use dimension is also high, given that SIMRS is mandatory in daily operational activities.

However, the information quality dimension has not yet been fully achieved. Inconsistencies in report formats and incomplete data variables necessitate manual adjustments, which in turn affect user satisfaction and limit the net benefits derived from the system.

From the perspective of organisational information systems (O'Brien and Marakas, 2020), effective optimisation requires a balance between technology, human

resources, and organisational structures. The findings reveal that although the technological aspect—particularly infrastructure and system integration—is relatively adequate, the human and organisational aspects remain insufficient to fully support optimisation.

These findings are further supported by Kotter's digital transformation framework (2019). Bogor Islamic Hospital has achieved the initial stages of digital transformation, including establishing a sense of urgency driven by national regulatory requirements (e.g., Minister of Health Regulation No. 82 of 2013 and the SatuSehat integration policy) and forming a cross-functional guiding coalition. However, the subsequent stages—such as consolidating improvements and institutionalising change—have not been fully realised due to the absence of routine evaluation and limited internalisation of a digital culture.

This condition reflects a transitional stage of digital maturity, characterised by an imbalance between technological readiness and human and organisational capacity. Similar findings are reported by Putra and Rahmadani (2022), who highlight that many hospitals remain in the digital transition phase due to insufficient development of human resources and governance mechanisms in hospital information systems.

## CONCLUSION

### Conclusion and Implications

Based on the findings and analysis, several key conclusions can be drawn:

1. The Hospital Management Information System (SIMRS) has been implemented across both service and administrative units, including registration, medical services, medical records, pharmacy, and finance. The system effectively integrates data across units and serves as the primary source for internal managerial reporting. However, its effectiveness in supporting external reporting remains limited due to inconsistencies in report formats and incomplete data variables in accordance with national standards, necessitating manual verification and correction.
2. Supporting factors for SIMRS optimisation include strong managerial commitment, integration of system modules, adequate technological infrastructure, the presence of an internal IT team, competent core users, and clearly defined standard operating procedures. Nevertheless, several constraints persist, including limitations in information quality, variability in user competence and discipline, limited system flexibility in adapting to regulatory changes, high dependence on external vendors, and suboptimal mechanisms for routine evaluation and monitoring. These conditions indicate an imbalance between technological, human, and organisational dimensions.
3. In internal reporting, SIMRS has contributed to improved efficiency, faster data access, and enhanced managerial decision-making through structured and near real-time information. In contrast, for external reporting, the system has not yet fully achieved the capability to generate standardised reports without manual intervention, thereby affecting the timeliness and consistency of reporting processes.

## Implications

This study provides both theoretical and practical contributions. Theoretically, it reinforces the DeLone and McLean Information System Success Model by emphasising the critical role of information quality in determining system success, particularly in contexts requiring strict standardisation such as external reporting.

Practically, hospital management should prioritise improving the quality of information outputs rather than focusing solely on system utilisation. This includes ensuring that data entered at the operational level are complete, consistent, and aligned with national reporting standards, as the quality of reporting outputs is fundamentally dependent on the quality of input data.

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