

INTISARI

Penelitian ini bertujuan mengoptimalkan pengelolaan persediaan obat di Instalasi Farmasi RS ABC, rumah sakit swasta tipe B rujukan BPJS di Jawa Timur, melalui implementasi *Data-Driven Decision Making* (DDDM) yang didukung *Decision Support System* (DSS) berbasis *dashboard Power BI*. Pengumpulan data dilakukan melalui analisis data historis dari Sistem Informasi Rumah Sakit (SIRS), tiga sesi *Focus Group Discussion* (FGD) dengan tim farmasi dan logistik, serta klarifikasi dokumen SOP dan struktur organisasi. Metode penelitian menggunakan pendekatan deskriptif kuantitatif dengan penerapan berbagai teknik analisis persediaan seperti klasifikasi ABC, perhitungan *Economic Order Quantity* (EOQ), *Reorder Point* (ROP), *Safety Stock*, *Inventory Valuation*, *Inventory Turnover*, dan peramalan permintaan menggunakan *Brown's Smoothing*. Seluruh proses data *cleaning*, transformasi, dan visualisasi dilakukan menggunakan *Power Query* dan *DAX* di *Power BI*.

Hasil penelitian menunjukkan bahwa *dashboard* interaktif yang dikembangkan berpotensi meningkatkan transparansi data, mempercepat pengambilan keputusan pengadaan, dan mengurangi risiko kekurangan stok maupun kelebihan stok. Visualisasi dalam enam halaman *dashboard* memberikan *insight* penting terkait struktur nilai persediaan, variasi permintaan dan *lead time*, risiko kekosongan stok, perputaran *inventory*, hingga analisis distributor dan margin produk. Temuan ini sejalan dengan literatur manajemen operasi dan mendemonstrasikan potensi *Power BI* sebagai alat pengambilan keputusan yang adaptif dalam sistem rumah sakit. Penelitian ini memberikan kontribusi praktis bagi pengembangan sistem informasi terintegrasi dan kontribusi teoritis bagi studi manajemen persediaan di sektor layanan kesehatan.

Kata kunci: Pengelolaan Persediaan, Farmasi Rumah Sakit, Analisis ABC, *Power BI Dashboard*, *Decision Support System*, *Data-Driven Decision-Making* (DDDM)

ABSTRACT

This research aims to enhance drug inventory management at ABC Hospital Pharmacy, a type B private hospital associated with BPJS in East Java, by employing Data-Driven Decision Making (DDDM) facilitated by a Decision Support System (DSS) with a Power BI dashboard. Data collection involved the examination of historical data from the Hospital Information System (HIS), three Focus Group Discussion (FGD) sessions with the pharmacy and logistics teams, and the explanation of Standard Operating Procedure (SOP) documentation and organizational structure. The research methodology utilized a quantitative descriptive approach, incorporating diverse inventory analysis techniques including ABC classification, Economic Order Quantity (EOQ) calculation, Reorder Point (ROP), Safety Stock, Inventory Valuation, Inventory Turnover, and demand forecasting through Brown's Smoothing. The comprehensive data cleansing, transformation, and visualization process was executed via Power Query and DAX within Power BI. The research findings suggest that the created interactive dashboard can improve data transparency, expedite procurement decision-making, and mitigate the hazards of stockouts and overstocking. The visualizations on the six dashboard pages offer critical insights into inventory value composition, demand fluctuations, lead times, stockout risks, inventory turnover, and analyses of distributor and product margins. These findings correspond with operations management literature and illustrate the potential of Power BI as a flexible decision-making instrument within hospital systems. This research provides practical contributions to the advancement of integrated information systems and theoretical insights into inventory management within the healthcare sector.

Keywords: Inventory Management, Hospital Pharmacy, ABC Analysis, Power BI Dashboard, Decision Support System, Data-Driven Decision-Making (DDDM)