

ABSTRAK

PT Saprotan Utama, distributor pupuk dan pestisida, masih melaporkan distribusi barang secara manual melalui spreadsheet dan print out sehingga data bersifat statis, tidak real-time, dan menyulitkan monitoring kinerja per wilayah, produk, serta segmen pelanggan. Penelitian ini bertujuan merancang dan mengembangkan *dashboard* visualisasi data menggunakan *Power BI* untuk monitoring dan analisis saluran distribusi, dengan mengintegrasikan data target dan realisasi penjualan tahun 2024–2025. Data *warehouse* dikembangkan dengan metode *Nine-Step Kimball*, mulai dari penentuan proses bisnis hingga proses ETL, sedangkan pengumpulan data dilakukan melalui wawancara, observasi, dan studi literatur. Evaluasi sistem dilakukan dengan *Black Box Testing* dan *System Usability Scale* (SUS). *Dashboard* yang dihasilkan menampilkan KPI (total realisasi, total target, achievement, gap target), map chart, combo chart, grafik kolom dan batang, diagram donat, tabel, serta fitur slicer. Hasil pengujian *Black Box Testing* mencapai 100% keberhasilan dari 16 skenario, dan skor SUS 72,0 (kategori Good). Dengan demikian, *dashboard Power BI* berbasis *Nine-Step Kimball* berhasil mengubah sistem pelaporan manual menjadi sistem visualisasi data interaktif dan terintegrasi yang mendukung monitoring dan pengambilan keputusan distribusi barang di PT Saprotan Utama.

Kata kunci: *Business Intelligence, Power BI, dashboard, distribusi barang, metode Nine-Step Kimball*

ABSTRACT

PT Saprotan Utama, a distributor of fertilizers and pesticides, still reports goods distribution manually through spreadsheets and printed reports, resulting in static, non-real-time data that hinders performance monitoring by region, product, and customer segment. This study aims to design and develop a data visualization *dashboard* using *Power BI* for monitoring and analyzing the distribution channel, integrating sales target and realization data for 2024–2025. The data *warehouse* was developed using the *Nine-Step Kimball* method, from business process identification through the ETL process, while data were collected via interviews, observations, and literature study. System evaluation was conducted using *Black Box Testing* and the *System Usability Scale* (SUS). The resulting *dashboard* presents KPIs (total realization, total target, achievement, target gap), a map chart, combo chart, column and bar charts, a doughnut chart, tables, and slicer features. *Black Box Testing* achieved a 100% success rate across 16 scenarios, and the SUS score reached 72.0 (Good category). Overall, the *Nine-Step Kimball*-based *Power BI dashboard* successfully transformed the manual reporting system into an interactive, integrated data visualization system that supports the monitoring and decision-making of goods distribution at PT Saprotan Utama.

Keywords: *Business Intelligence, Power BI, dashboard, goods distribution, Nine-Step Kimball method*