

ABSTRAK

Pengelolaan persediaan barang dan pencatatan transaksi penjualan pada CV. Maestro Atap Bandung saat ini masih bergantung pada *spreadsheet* (Microsoft Excel) yang terpisah-pisah. Keterbatasan sistem semi-manual ini memicu hambatan operasional, seperti keterlambatan konfirmasi stok, ketidaksesuaian data (*data discrepancy*) antara kasir dan gudang, tingginya risiko kesalahan input (*human error*), serta lambatnya penyusunan laporan operasional. Oleh karena itu, diperlukan perencanaan arsitektur enterprise untuk menyelaraskan strategi bisnis dengan teknologi informasi secara holistik.

Penelitian ini bertujuan merancang cetak biru (*blueprint*) Enterprise Architecture aplikasi "Maestro Inventory" berbasis web menggunakan kerangka kerja TOGAF ADM (*The Open Group Architecture Framework Architecture Development Method*). Perancangan dibatasi hingga fase *Opportunities and Solutions* (Fase E), mencakup *Preliminary Phase*, *Architecture Vision*, *Business Architecture*, *Information System Architecture*, *Technology Architecture*, hingga *Gap Analysis*. Data dihimpun melalui observasi lapangan, wawancara mendalam dengan *owner*, *sales*, dan admin gudang, serta studi dokumentasi operasional.

Hasil perancangan menghasilkan arsitektur bisnis baru (*To-Be*) yang mengintegrasikan transaksi kasir dengan pemotongan stok otomatis di gudang. Arsitektur sistem informasi memetakan 4 modul utama (*Autentikasi*, *Penjualan*, *Persediaan*, dan *Laporan*) dengan basis data terpusat (*Single Source of Truth*). Sementara itu, arsitektur teknologi merekomendasikan topologi berbasis *Cloud VPS* dan keamanan *HTTPS/SSL*. Cetak biru ini menjadi acuan baku bagi perusahaan dalam membangun sistem informasi yang terintegrasi dan efisien.

Kata Kunci: Enterprise Architecture, TOGAF ADM, Persediaan Barang, Sistem Informasi Penjualan, Maestro Inventory

ABSTRACT

Inventory management and sales transaction recording at CV. Maestro Atap Bandung currently rely on separate spreadsheets (Microsoft Excel). This semi-manual limitation triggers operational bottlenecks, such as delayed stock checks, data discrepancies between sales and warehouse, high risk of human error, and slow report generation. Therefore, an enterprise architecture plan is required to align business strategies with information technology needs.

This study aims to design an Enterprise Architecture blueprint for the web-based "Maestro Inventory" application using the TOGAF ADM framework. The scope is limited to the Opportunities and Solutions phase (Phase E), encompassing the Preliminary Phase, Architecture Vision, Business Architecture, Information System Architecture, Technology Architecture, and Gap Analysis. Data were collected through field observations, in-depth interviews with stakeholders, and operational documentation analysis.

The outcome presents a new target business architecture (To-Be) integrating sales transactions with automated warehouse stock deductions. The information system architecture defines four core modules (Authentication, Sales, Inventory, and Reports) using a centralized database (Single Source of Truth). Additionally, the technology architecture recommends a Cloud VPS topology with HTTPS/SSL security. This blueprint serves as a standardized reference for developing an integrated and efficient system.

Keywords: Enterprise Architecture, TOGAF ADM, Inventory Management, Sales Information System, Maestro Inventory