

ABSTRAK

Proses pemilihan *supplier* bahan baku obat di PT XYZ masih konvensional, subjektif, dan bergantung pada *single supplier* luar negeri, sehingga menimbulkan risiko logistik global serta menghambat target regulasi TKDN minimal 40%. Penelitian ini menerapkan metode *Simple Multi-Attribute Rating Technique* (SMART) ke dalam Sistem Pendukung Keputusan (SPK) pemilihan *supplier* berbasis *website* yang dapat menerima notifikasi batas *reorder point*. Mengadopsi model Herbert A. Simon, data dihimpun melalui wawancara dan observasi terhadap 7 kriteria mutu farmasi dan komersial. Sistem dimodelkan dengan UML dan ERD, lalu dibangun menggunakan arsitektur *full-stack JavaScript* (*ReactJS*, *ExpressJS*, *Node.js*) dan basis data MySQL. Logika hitung divalidasi lewat perhitungan manual sedangkan fungsionalitas aplikasi diuji dengan *Black Box Testing*. Hasil akhir penelitian berupa aplikasi SPK-SMART fungsional yang mengotomatiskan kalkulasi nilai utilitas secara transparan untuk menghasilkan rekomendasi perankingan *supplier* lokal terbaik guna mendukung keputusan pengadaan perusahaan.

Kata Kunci : Sistem Pendukung Keputusan, SMART, *Supplier*, *Website*

ABSTRACT

The supplier selection for medicine raw materials at PT XYZ remains conventional, subjective, and dependent on a foreign single supplier, which triggers global logistics risks and hinders the minimum 40% TKDN regulation target. This study implements the Simple Multi-Attribute Rating Technique (SMART) method into a web-based Decision Support System (DSS) for supplier selection, which is capable of receiving reorder point limit notifications. Adopting Herbert A. Simon's model, criteria and weighting data were gathered via interviews and observations across 7 pharmaceutical quality and commercial criteria. Modeled using UML and ERD, the system was developed using a full-stack JavaScript architecture (ReactJS, ExpressJS, Node.js) with a MySQL database. Mathematical logic was validated through manual calculation, while system functionalities were evaluated using Black Box Testing. The final result is a functional DSS-SMART application that automates utility value calculations transparently to generate optimal local supplier ranking recommendations to support procurement decisions.

Keywords: Decision Support System, Simple Multi-Attribute Rating Technique (SMART), Supplier, Website