

**SISTEM PENDUKUNG KEPUTUSAN PENENTUAN *SUPPLIER* DI TOKO ZALFA
TOYS MENGGUNAKAN METODE MOORA
(*MULTI-OBJECTIVE OPTIMIZATION ON THE
BASIS OF RATIO ANALYSIS*)**

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ABSTRAK

Pengambilan keputusan memiliki peran penting dalam menentukan alternatif terbaik, termasuk dalam pemilihan *supplier*. Perkembangan teknologi informasi memungkinkan proses ini dilakukan lebih cepat, akurat, dan objektif melalui sistem pendukung keputusan (SPK). Penelitian ini membahas penerapan metode *Multi-Objective Optimization on the Basis of Ratio Analysis* (MOORA) dalam SPK untuk membantu pemilik Toko ZALFA TOYS dalam menentukan *supplier* yang sesuai berdasarkan kriteria kualitas produk, harga barang, jarak pengiriman, pelayanan, dan ketersediaan barang. Tujuan penelitian ini adalah merancang dan menerapkan SPK yang dapat mendukung pengambilan keputusan pemilihan *supplier* secara terstruktur serta memberikan rekomendasi berbasis metode MOORA. Hasil penelitian menunjukkan bahwa melalui perhitungan MOORA, Fieno Mustika Toys (A2) menempati peringkat teratas dengan nilai akhir 0,064, diikuti oleh Yahya Toys (A3) dan Lisa Liu Toys (A1). Berdasarkan hasil rekomendasi sistem bahwa Fieno Mustika Toys layak menjadi *supplier* utama bagi Toko ZALFA TOYS. Selain itu, hasil perhitungan sistem terbukti sama dengan perhitungan manual, menunjukkan tingkat akurasi 100%. Dengan demikian, penerapan metode MOORA terbukti efektif sebagai dasar dalam pengambilan keputusan, karena mampu mengolah data dan menghasilkan peringkat alternatif yang objektif untuk mendukung pemilihan *supplier* terbaik.

Kata kunci: Sistem pendukung keputusan, MOORA, *Supplier*, Kriteria, Pengambilan keputusan

**DECISION SUPPORT SYSTEM FOR SUPPLIER SELECTION AT ZALFA TOYS STORE
USING MOORA METHOD (MULTI-OBJECTIVE OPTIMIZATION
ON THE BASIS OF RATIO ANALYSIS)**

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ABSTRACT

Decision making plays an important role in determining the best alternative, including in the selection of suppliers. Advances in information technology enable this process to be carried out more quickly, accurately, and objectively through decision support systems (DSS). This study discusses the application of the Multi-Objective Optimization on the Basis of Ratio Analysis (MOORA) method in DSS to assist the owner of ZALFA TOYS in determining the appropriate supplier based on product quality, price, delivery distance, service, and product availability criteria. The purpose of this study is to design and implement a DSS that can support structured supplier selection decision making and provide recommendations based on the MOORA method. The results show that through MOORA calculations, Fieno Mustika Toys (A2) ranks first with a final score of 0.064, followed by Yahya Toys (A3) and Lisa Liu Toys (A1). The system recommendation states that Fieno Mustika Toys is suitable to be the main supplier for ZALFA TOYS Store. In addition, the system calculation results are proven to be the same as the manual calculation, showing an accuracy rate of 100%. Thus, the application of the MOORA method is proven to be effective as a basis for decision making, because it is able to process data and produce objective alternative rankings to support the selection of the best supplier.

Keywords: *Decision support system, MOORA, Supplier, Criteria, Decision making*