

**PENERAPAN METODE SAW (*SIMPLE ADDITIVE WEIGHTHING*) – WP
(*WEIGHTED PRODUCT*) DALAM PENGAMBILAN KEPUTUSAN UNTUK
PEMBERIAN KREDIT**

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ABSTRAK

Penelitian ini bertujuan untuk menerapkan serta menganalisis metode Simple Additive Weighting (SAW), Weighted Product (WP), dan metode kombinasi Modified SAW dalam sistem pendukung keputusan pemberian kredit pada koperasi. Permasalahan utama yang dihadapi koperasi adalah proses penilaian kelayakan kredit yang masih bersifat subjektif dan berpotensi meningkatkan risiko kredit macet. Penelitian ini menggunakan pendekatan kuantitatif deskriptif dengan data sebanyak 50 calon peminjam kredit. Penilaian kelayakan dilakukan berdasarkan enam kriteria utama, yaitu usaha, pendapatan, karakter, usia, riwayat kredit, dan jumlah kepemilikan utang. Metode SAW digunakan untuk melakukan normalisasi dan perhitungan nilai preferensi melalui penjumlahan terbobot, metode WP digunakan dengan pendekatan perkalian terbobot, sedangkan Modified SAW merupakan penggabungan dari kedua metode tersebut. Hasil penelitian menunjukkan bahwa metode SAW, WP, dan Modified SAW mampu menghasilkan peringkat kelayakan kredit secara sistematis dan objektif. Metode Modified SAW memberikan hasil yang lebih stabil dan representatif karena mengombinasikan keunggulan metode SAW yang sederhana dan metode WP yang mempertimbangkan proporsionalitas antar kriteria. Dengan demikian, penerapan metode gabungan SAW dan WP dapat meningkatkan kualitas pengambilan keputusan dalam pemberian kredit serta membantu koperasi dalam meminimalkan risiko kredit macet.

Kata Kunci: Sistem Pengambilan Keputusan, SAW, WP, Modified SAW, kredit koperasi

**IMPLEMENTATION OF SAW (SIMPLE ADDITIVE WEIGHTING) – WP
(WEIGHTED PRODUCT) METHODS IN DECISION MAKING FOR
CREDIT APPROVAL**

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ABSTRACT

This study aims to implement and analyze the Simple Additive Weighting (SAW), Weighted Product (WP), and the combined Modified SAW methods in a decision support system for credit approval in cooperatives. A major problem faced by cooperatives is the subjectivity in credit eligibility assessment, which may increase the risk of non-performing loans. This research employs a descriptive quantitative approach using data from 50 credit applicants. Credit eligibility assessment is based on six main criteria, namely business activity, income, character, age, credit history, and total outstanding debt. The SAW method is applied for data normalization and preference value calculation through weighted summation, the WP method uses a weighted multiplication approach, while the Modified SAW method integrates both techniques. The results indicate that the SAW, WP, and Modified SAW methods are able to produce systematic and objective credit rankings. The Modified SAW method provides more stable and representative results by combining the simplicity of the SAW method and the proportional assessment capability of the WP method. Therefore, the combined SAW and WP approach can improve decision-making quality in credit approval processes and assist cooperatives in reducing the risk of non-performing loans.

Keywords: decision support system, SAW, WP, Modified SAW, cooperative credit.