ABSTRAK

Penilaian kelayakan calon debitur kredit sepeda motor pada PT Mega Central Finance (MCF) Cabang Lhokseumawe selama ini masih mengandalkan penilaian subjektif analis kredit sehingga berpotensi menimbulkan ketidakkonsistenan keputusan dan meningkatkan risiko kredit bermasalah. Penelitian ini bertujuan menerapkan dan membandingkan dua metode sistem pendukung keputusan, yaitu *Simple Multi Attribute Rating Technique* (SMART) dan *Additive Ratio Assessment* (ARAS), dalam menentukan kelayakan calon debitur. Penelitian menggunakan data primer berupa 223 berkas pengajuan pembiayaan sepeda motor periode 2024–2025 yang diambil dengan teknik sampling jenuh (*total sampling*), dengan tujuh kriteria penilaian hasil pemetaan prinsip 5C, yaitu usia, pendapatan bulanan, pekerjaan, status pernikahan, jumlah tanggungan, sisa pelunasan, dan uang muka. Bobot kriteria ditetapkan melalui *expert judgment* dengan teknik alokasi 100 poin dan digunakan secara identik pada kedua metode, sedangkan alternatif dinyatakan layak apabila nilai akhirnya mencapai batas minimal 0,60. Hasil penelitian menunjukkan metode SMART menghasilkan 96 debitur layak (43,0%) dan 127 tidak layak, sedangkan metode ARAS menghasilkan 181 debitur layak (81,2%) dan 42 tidak layak. Kedua metode konsisten dalam menempatkan alternatif berprofil kriteria ekstrem pada peringkat yang sama, namun terjadi pergeseran peringkat hingga 31 posisi pada alternatif dengan profil kriteria tidak seragam. Perbedaan tersebut bersumber dari mekanisme normalisasi, yaitu SMART menggunakan normalisasi *min-max* sehingga bersifat lebih selektif, sedangkan ARAS menggunakan rasio terhadap alternatif optimal sehingga bersifat lebih fleksibel. Dengan demikian, metode SMART lebih sesuai diterapkan pada kebijakan kehati-hatian, sedangkan metode ARAS lebih sesuai untuk perluasan penyaluran kredit.

Kata Kunci: ARAS, kelayakan kredit, kredit sepeda motor sistem pendukung keputusan, SMART**.**

ABSTRACT

The assessment of motorcycle credit applicants at PT Mega Central Finance (MCF) Lhokseumawe Branch still relies on the subjective judgment of credit analysts, which may lead to inconsistent decisions and increase the risk of non-performing loans. This study aims to apply and compare two decision support methods, namely the Simple Multi Attribute Rating Technique (SMART) and Additive Ratio Assessment (ARAS), in determining applicant creditworthiness. The study used primary data consisting of 223 motorcycle financing applications for the 2024–2025 period selected through total sampling, with seven assessment criteria derived from the 5C credit principles: age, monthly income, occupation, marital status, number of dependents, outstanding balance, and down payment. Criteria weights were determined through expert judgment using a 100-point allocation technique and applied identically to both methods, while an alternative was considered feasible when its final score reached a minimum threshold of 0.60. The results show that SMART classified 96 applicants (43.0%) as feasible and 127 as not feasible, whereas ARAS classified 181 applicants (81.2%) as feasible and 42 as not feasible. Both methods consistently assigned identical ranks to alternatives with extreme criteria profiles, yet rank shifts of up to 31 positions occurred for alternatives with non-uniform criteria profiles. These differences stem from the normalization mechanism, in which SMART applies min-max normalization and is therefore more selective, while ARAS applies a ratio to the optimal alternative and is more flexible. Accordingly, SMART is more suitable for a prudential financing policy, whereas ARAS is more suitable for credit expansion.

Keywords*: ARAS, credit feasibility, decision support system, motorcycle credit, SMART.*