

ABSTRAK

Perkembangan pesat perguruan tinggi di provinsi Sumatera Barat, baik negeri maupun swasta, mendorong meningkatnya persaingan antar instansi dalam memberikan layanan akademik dan administrasi yang berkualitas. Kepuasan mahasiswa menjadi indikator penting dalam menilai kinerja layanan tersebut, yang muncul dari perbandingan antara harapan dan persepsi terhadap layanan yang diterima. Dalam konteks ini, kualitas layanan menjadi faktor kunci untuk mencapai keunggulan kompetitif, yang mencakup aspek *reliability*, *responsiveness*, *assurance*, *empathy*, dan *tangible*. Namun pengukuran tingkat kepuasan sering kali bersifat subjektif dan tidak pasti. Oleh karena itu, penelitian ini bertujuan untuk merancang model *Fuzzy Inference System* (FIS) dengan metode Mamdani guna mengevaluasi tingkat kepuasan mahasiswa terhadap layanan akademik dan administrasi di Universitas Dharma Andalas. Metode Mamdani dipilih karena mampu menangani data yang bersifat tidak pasti melalui empat tahapan utama: pembentukan himpunan *fuzzy*, aplikasi fungsi implikasi, komposisi aturan, dan *defuzzifikasi*. Diharapkan model ini dapat memberikan solusi evaluatif yang lebih akurat dalam meningkatkan kualitas pelayanan perguruan tinggi.

Kata kunci: Kepuasan Mahasiswa, Layanan Akademik dan Administrasi, *Fuzzy Inference System*, Metode Mamdani

ABSTRACT

The rapid development of higher education institutions in West Sumatra Province, both public and private, has led to increased competition among institutions in providing quality academic and administrative services. Student satisfaction has become an important indicator in evaluating the performance of these services, which arises from the comparison between expectations and perceptions of the services received. In this context, service quality becomes a key factor in achieving competitive advantage, encompassing aspects such as reliability, responsiveness, assurance, empathy, and tangibles. However, measuring the level of satisfaction is often subjective and uncertain. Therefore, this study aims to design a Fuzzy Inference System (FIS) model using the Mamdani method to evaluate student satisfaction with academic and administrative services at Dharma Andalas University. The Mamdani method is chosen because it can handle uncertain data through four main stages: fuzzification, application of implication functions, rule composition, and defuzzification. It is expected that this model can provide a more accurate evaluative solution to improve the quality of services in higher education institutions.

Keywords: *Student Satisfaction, Academic and Administrative Services, Fuzzy Inference System, Mamdani Method*