

ABSTRAK

Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu (DPMPTSP) Kabupaten Banyuasin masih mengalami kendala dalam pengolahan dan analisis data potensi investasi daerah, sehingga penentuan prioritas investasi masih dilakukan secara manual dan belum tersedia penyajian informasi potensi investasi berbasis geolokasi yang dapat menampilkan letak serta persebaran wilayah secara jelas dan informatif. Penelitian ini bertujuan untuk membangun sistem pendukung keputusan penentuan prioritas potensi investasi daerah berbasis geolokasi dengan menerapkan metode Simple Additive Weighting (SAW). Sistem dikembangkan menggunakan metode Rapid Application Development (RAD) yang terdiri dari tahap perencanaan kebutuhan, desain sistem, pengembangan, dan implementasi, dengan memanfaatkan framework Laravel Filament, basis data MySQL, serta library Leaflet dan OpenStreetMap untuk visualisasi geolokasi. Metode SAW diterapkan pada 21 kecamatan sebagai alternatif dengan menggunakan empat kriteria, yaitu Potensi Sumber Daya Alam (bobot 0,35), Luas Wilayah Potensi (bobot 0,30), Jumlah Tenaga Kerja (bobot 0,20), dan Aksesibilitas Wilayah (bobot 0,15). Hasil penelitian menunjukkan bahwa Kecamatan Banyuasin III menempati peringkat pertama dengan nilai preferensi 0,9400, disusul Kecamatan Talang Kelapa (0,9300) dan Kecamatan Muara Telang (0,9000). Pengujian sistem menggunakan metode Black Box Testing terhadap 42 skenario uji menunjukkan bahwa seluruh fitur sistem berfungsi sesuai dengan yang diharapkan. Sistem yang dibangun dapat membantu DPMPTSP Kabupaten Banyuasin dalam menentukan prioritas potensi investasi daerah secara objektif, efisien, dan informatif bagi calon investor.

Kata kunci: Sistem Pendukung Keputusan, Simple Additive Weighting, Geolokasi, Potensi Investasi, Rapid Application Development

ABSTRACT

The Investment and One-Stop Integrated Services Office (DPMPTSP) of Banyuasin Regency still faces challenges in processing and analyzing regional investment potential data, resulting in investment prioritization being conducted manually and the absence of geolocation-based information presentation that can clearly and informatively display the location and distribution of potential investment areas. This research aims to build a decision support system for determining regional investment potential priorities based on geolocation by applying the Simple Additive Weighting (SAW) method. The system was developed using the Rapid Application Development (RAD) method, consisting of requirement planning, system design, development, and implementation stages, utilizing the Laravel Filament framework, MySQL database, and the Leaflet and OpenStreetMap libraries for geolocation visualization. The SAW method was applied to 21 sub-districts as alternatives using four criteria, namely Natural Resource Potential (weight 0.35), Potential Area Size (weight 0.30), Labor Force (weight 0.20), and Regional Accessibility (weight 0.15). The results show that Banyuasin III Sub-district ranked first with a preference value of 0.9400, followed by Talang Kelapa Sub-district (0.9300) and Muara Telang Sub-district (0.9000). System testing using the Black Box Testing method on 42 test scenarios showed that all system features functioned as expected. The developed system assists the DPMPTSP of Banyuasin Regency in determining regional investment potential priorities objectively, efficiently, and informatively for prospective investors.

Keywords: Decision Support System, Simple Additive Weighting, Geolocation, Investment Potential, Rapid Application Development