

EVALUASI KESESUAIAN LOKASI MINIMARKET DI KECAMATAN KESAMBI, KOTA CIREBON DENGAN *GOOGLE EARTH ENGINE* PADA TAHUN 2025

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INTISARI

Penentuan lokasi yang tepat merupakan faktor krusial dalam keberhasilan bisnis ritel khususnya minimarket ditengah persaingan pasar yang semakin ketat serta regulasi tata ruang yang kompleks. Kecamatan Kesambi memiliki luas 8,06 km² dengan kepadatan penduduk 9.925 jiwa/km² dan terdapat 32 gerai minimarket pada tahun 2025. Kondisi ini menimbulkan tantangan dalam penyusunan kebijakan lokasi ritel yang berkelanjutan. Lokasi yang kurang sesuai dapat menyebabkan ketimpangan layanan dan konflik dengan keberadaan pasar tradisional. Berdasarkan kondisi tersebut, penelitian ini bertujuan untuk mengevaluasi kesesuaian lokasi gerai minimarket eksisting di Kecamatan Kesambi dengan menerapkan metode *weighted overlay* pada platform *Google Earth Engine* berbasis *cloud*.

Penelitian ini mengintegrasikan delapan parameter spasial, yaitu fungsi jalan, jarak ke pasar tradisional, jarak ke fasilitas kesehatan, jarak ke fasilitas pendidikan, jarak dari minimarket eksisting, kepadatan penduduk, penggunaan lahan, dan zonasi tata ruang. Parameter-parameter tersebut diolah untuk menghasilkan peta klasifikasi kesesuaian lokasi. Validasi dilakukan melalui observasi lapangan guna memastikan hasil analisis sesuai dengan kondisi aktual. Hasil penelitian disajikan melalui *Earth Engine Apps* yang diberi nama Suailoka Kesambi dilengkapi fitur peta, legenda, dan ekspor data. Uji usability aplikasi dilakukan dengan kuesioner kepada 25 responden beta tester, mengevaluasi aspek *learnability*, *efficiency*, *memorability*, *errors*, dan *satisfaction*.

Hasil analisis menunjukkan bahwa dari 32 gerai minimarket eksisting, 2 gerai (6%) berada pada lokasi sangat sesuai, 24 gerai (75%) cukup sesuai, dan 6 gerai (19%) tidak sesuai. Rata-rata skor kesesuaian adalah 1,89, mengindikasikan tingkat kesesuaian sedang. Aplikasi Suailoka Kesambi memperoleh rata-rata skor usability sebesar 95,7%, mencerminkan kemudahan penggunaan dan tingkat kepuasan pengguna yang tinggi. Penelitian ini menyimpulkan bahwa platform *Google Earth Engine* efektif digunakan untuk mengevaluasi kesesuaian lokasi minimarket secara spasial.

Kata Kunci: Minimarket, *Google Earth Engine*, Bobot Tertimbang, Evaluasi

***EVALUATION OF MINIMARKET SUITABILITY IN KESAMBI DISTRICT,
CIREBON CITY, USING GOOGLE EARTH ENGINE IN 2025***

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ABSTRACT

Determining the right location is a crucial factor in the success of retail businesses, especially minimarkets, amidst increasingly fierce market competition and complex spatial planning regulations. Kesambi District has an area of 8.06 km² with a population density of 9,925 people/km² and there will be 32 convenience stores in 2025. This condition poses challenges in developing sustainable retail location policies. An unsuitable location can lead to service disparities and conflict with the presence of traditional markets. Based on these conditions, this study aims to evaluate the suitability of existing convenience store locations in Kesambi District by applying the weighted overlay method on the cloud-based Google Earth Engine platform.

This study integrates eight spatial parameters, namely road function, distance to traditional markets, distance to healthcare facilities, distance to educational facilities, distance from existing minimarkets, population density, land use, and spatial planning zoning. These parameters are processed to generate a location suitability classification map. Validation is carried out through field observation to ensure the analysis results are in accordance with the actual conditions. The research results are presented through Earth Engine Apps named Suailoka Kesambi, equipped with map features, legends, and data export. The usability test for the application was conducted using a questionnaire administered to 25 beta testers, evaluating aspects of learnability, efficiency, memorability, errors, and satisfaction.

The analysis results show that out of the 32 existing minimarkets, 2 stores (6%) are in very suitable locations, 24 stores (75%) are in moderately suitable locations, and 6 stores (19%) are in unsuitable locations. The average suitability score is 1.89, indicating a moderate level of suitability. The Suailoka Kesambi application received an average usability score of 95.7%, reflecting its ease of use and high user satisfaction level. This research concludes that the Google Earth Engine platform is effective for spatially evaluating the suitability of minimarket locations.

Keywords: Minimarket, Google Earth Engine, Weighted Scoring, Evaluation