

INTISARI

Pertambahan penduduk di Indonesia tiap tahunnya selalu diikuti dengan perkembangan area perumahan, kegiatan industri, perkantoran dan penggunaan tanah serta bangunan. Khususnya di daerah perkotaan perkembangan tersebut tidak dapat dipisahkan dari fakta bahwa kota-kota besar cenderung menjadi poros perekonomian. Setiap bangunan pasti memiliki identitas berupa alamat untuk menunjukkan suatu posisi, alamat juga digunakan untuk mempermudah berbagai hal, seperti keperluan distribusi barang dan mengidentifikasi tempat tujuan. Selain data alamat yang tidak lengkap, data referensi seperti poligon (gedung, tanah), garis (jalan) dan titik (titik alamat, tempat-tempat penting) di Indonesia masih belum ideal dan lengkap.

Penelitian ini berlokasi di Kecamatan Semarang Selatan, Kota Semarang, Provinsi Jawa Tengah yang merupakan wilayah perkotaan. Data referensi berupa peta bidang tanah Kota Semarang dan data alamat yang diperoleh dari Dinas Tata Ruang Kota Semarang. Proses standardisasi dilakukan berdasarkan SNI 9037:2021 tentang Pengalamatan di Wilayah Perkotaan dan Perdesaan. Kegiatan penelitian yang dilaksanakan adalah pengidentifikasian karakteristik alamat di Kecamatan Semarang Selatan, standardisasi alamat, pembuatan *address locator* dan proses *geocoding*, pembuatan *WebGIS Geocoded Address* Kecamatan Semarang Selatan, dan pengujian penggunaan terhadap *WebGIS* yang telah dibuat.

Kelurahan Lamper Tengah menghasilkan *matched address* terendah yaitu hanya sebesar 1% pada 16 bidang, dengan *unmatched address* sebesar 98% pada 2.430 bidang saat menggunakan data sebelum proses standardisasi. Hasil *unmatched* yang besar disebabkan oleh banyaknya data referensi yang kosong, total bidang pada Kelurahan Lamper Tengah 2.477 dari jumlah tersebut hanya tersedia 47 data referensi pada tabel atribut alamat. Sementara itu, Kelurahan Pleburan memiliki hasil *geocoding* terbaik dengan *matched address* sebesar 1.621 (100%) data alamat, *tied* sebanyak 0 (0%) data alamat, dan *unmatched* sebanyak 0 (0%) saat menggunakan data setelah proses standardisasi. Data referensi awal sebanyak 75% dan struktur tata bidang yang baik menjadi faktor utama hasil yang didapatkan maksimal pada Kelurahan Pleburan.

Kata kunci: *Geocoding*, standardisasi alamat, wilayah perkotaan, *WebGIS*

ABSTRACT

Each year, the increase of population in Indonesia is always followed by the development of residential areas, industrial activities, offices and the use of land and buildings. Especially in urban areas, these developments cannot be separated from the fact that big cities tend to be the axis of the economy. Every building must have an identity in the form of an address to indicate a position. The address is also used to facilitate various things such as the need for distribution of goods and identifying the destination. In addition to incomplete address data, reference data such as polygons (buildings, land), lines (roads) and points (address points, important places) in Indonesia are still not ideal and complete.

This research located in South Semarang District, Semarang City, Central Java Province, which is an urban area. Reference data in the form of land parcel maps of Semarang City and address data, obtained from the Semarang City Spatial Planning Office. The standardization process is based on SNI 9037:2021 on Addressing in Urban and Rural Areas. The research conducted many activities such as survey and validation of address data, identification of address characteristics in South Semarang Subdistrict, address standardization, creation of address locator and Geocoding process, creation of WebGIS Geocoded Address South Semarang Subdistrict, and user testing of the WebGIS that has been created.

Lamper Tengah village produced the lowest matched result of only 1% in 16 fields, with an unmatched result of 98% in 2,430 fields when using data before the standardization process. The large unmatched results are due to the large amount of empty reference data. Total number of fields in Lamper Tengah village is 2,477 of which only 47 reference data are available in the address attribute table. Meanwhile, Pleburan village has the best geocoding results matched as much as 1,621 (100%) address data, tied as much as 0 (0%) address data, and unmatched as much as 0 (0%) when using data after the standardization process. 75% raw reference data and a good field structure are the main factors for the maximum results obtained in Pleburan village.

Keywords: Geocoding, address standardization, urban area, WebGIS