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Pemetaan Properti Komersial Kosong di Kota Yogyakarta
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INTISARI

Meningkatnya jumlah properti komersial kosong di Kota Yogyakarta akibat pergeseran perilaku konsumsi masyarakat ke arah daring serta penurunan jumlah wisatawan menjadi permasalahan tata ruang yang memerlukan data spasial akurat. Kondisi tersebut menyebabkan banyak properti komersial tidak lagi dimanfaatkan secara optimal di berbagai kawasan perkotaan. Penelitian ini bertujuan memetakan lokasi dan karakteristik properti komersial kosong, mengklasifikasikan jenis dan karakteristiknya, membangun *web map* interaktif, serta menguji usabilitasnya agar dapat menjadi acuan bagi pemerintah daerah, pelaku usaha, dan masyarakat dalam perencanaan pemanfaatan ruang kota.

Data diperoleh melalui identifikasi awal menggunakan Google Street View multi-tahun, kemudian dilanjutkan survei lapangan pada 3–18 Januari 2026 menggunakan aplikasi EpiCollect5. Sebanyak 1.251 unit properti komersial kosong berhasil tervalidasi, lalu diolah menggunakan QGIS untuk pengisian atribut, dilanjutkan analisis spasial *Global Moran's I* dan LISA. Data kemudian diekspor ke format GeoJSON dan digunakan untuk membangun *web map* berbasis Leaflet.js yang di-*hosting* melalui GitHub Pages. Uji usabilitas dilakukan terhadap 30 responden menggunakan kuesioner skala likert dengan lima aspek 5E.

Hasil pemetaan menunjukkan sebanyak 1.251 unit properti komersial kosong teridentifikasi dengan pola persebaran linier di koridor jalan utama dan mengelompok di pusat aktivitas ekonomi, serta didominasi oleh properti komersial yang telah kosong selama 2 tahun (508 unit). *Global Moran's I* (0,181; signifikan) menunjukkan kecenderungan pola mengelompok, sedangkan LISA mengonfirmasi pola linier yang mengikuti jaringan jalan utama. Analisis LISA juga menunjukkan bahwa sebagian besar wilayah tidak memiliki hubungan spasial yang signifikan sehingga variasi jumlah properti komersial kosong lebih dipengaruhi oleh karakteristik lokal wilayah. Jumlah tertinggi terdapat di Kemantren Umbulharjo (253 unit), Kelurahan Ngampilan (65 unit), Jalan Brigjen Katamso (47 unit), dan jalan kolektor (670 unit). Klasifikasi menunjukkan dominasi fungsi toko (616 unit), jenis toko retail (779 unit), tipologi perdagangan dan jasa skala kota (600 unit), serta sebagian besar mulai kosong pada tahun 2024 (508 unit). *Web map* berbasis Leaflet.js berhasil dikembangkan dengan berbagai fitur interaktif. Hasil uji usabilitas terhadap 30 responden menunjukkan seluruh aspek berkategori sangat baik, kecuali *engaging* yang berkategori baik dengan nilai *efficient* 94,67% dan 93,33%, *effective* 89,33% dan 92,67%, *engaging* 78,67% dan 76,67%, *error tolerant* 92% dan 88,67%, serta *easy to learn* 91,33% dan 90,67%. Instrumen kuesioner dinyatakan valid (r hitung > r tabel 0,361; *Sig.* < 0,05) dan reliabel (*Cronbach's Alpha* 0,834). Secara keseluruhan, penelitian ini berhasil menghasilkan data spasial dan *web map* interaktif untuk penyajian informasi properti komersial kosong di Kota Yogyakarta.

Kata kunci: properti komersial kosong, sistem informasi geografis, *web map*, usabilitas, Kota Yogyakarta

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ABSTRACT

The increasing number of vacant commercial properties in Yogyakarta City due to the shift in consumer behavior towards online consumption and the decline in tourist numbers has created a spatial planning issue that requires accurate spatial data. This situation has resulted in many commercial properties being underutilized in various urban areas. This study aims to map the location and characteristics of vacant commercial properties, classify their types and characteristics, develop an interactive web map, and test its usability to serve as a reference for local governments, businesses, and the public in urban spatial planning.

Data was obtained through initial identification using a multi-year Google Street View database, followed by a field survey from January 3–18, 2026, using the EpiCollect5 application. A total of 1,251 vacant commercial properties were successfully validated and processed using QGIS for attribute input, followed by Global Moran's I and LISA spatial analysis. The data was then exported to GeoJSON format and used to build a Leaflet.js-based web map hosted on GitHub Pages. Usability testing was conducted on 30 respondents using a likert-scale questionnaire with five aspects of the 5Es.

The mapping results showed that 1,251 vacant commercial properties were identified with a linear distribution pattern along the main road corridor and clustered in the center of economic activity, dominated by commercial properties that had been vacant for 2 years (508 units). Global Moran's I (0.181; significant) indicated a tendency for a clustered pattern, while LISA confirmed a linear pattern following the main road network. LISA analysis also showed that most areas lacked significant spatial relationships, so variations in the number of vacant commercial properties were more influenced by local characteristics of the area. The highest number was found in Umbulharjo District (253 units), Ngampilan Urban Village (65 units), Brigjen Katamso Street (47 units), and collector roads (670 units). The classification showed the dominance of shop functions (616 units), retail store types (779 units), city-scale trade and service typologies (600 units), and most began to become vacant in 2024 (508 units). A Leaflet.js-based web map was successfully developed with various interactive features. The results of the usability test on 30 respondents showed that all aspects were categorized as very good, except for engaging which was categorized as good with efficient values of 94.67% and 93.33%, effective 89.33% and 92.67%, engaging 78.67% and 76.67%, error tolerant 92% and 88.67%, and easy to learn 91.33% and 90.67%. The questionnaire instrument was declared valid (r count > r table 0.361; Sig. < 0.05) and reliable (Cronbach's Alpha 0.834). Overall, this study succeeded in producing spatial data and an interactive web map for presenting information on vacant commercial properties in Yogyakarta City.

Keywords: vacant commercial property, geographic information system, web map, usability, Yogyakarta City