INTISARI

Fenomena aglomerasi industri memberikan dampak signifikan bagi perkembangan wilayah perkotaan baik secara positif maupun negatif. Di sisi lain, aglomerasi meningkatkan efisiensi ekonomi dan mempercepat pertumbuhan wilayahnya. Namun, fenomena ini memicu peningkatan harga tanah dan kepadatan populasi yang dapat menurunkan kualitas hidup. Implementasi *internet of things* dalam bentuk *smart home* diusulkan sebagai solusi inovatif guna mendukung *sustainability*.

Penelitian ini memiliki tujuan menganalisis keterjangkauan perumahan terhadap pusat aglomerasi, fasilitas kesehatan, dan fasilitas pendidikan; serta menguji *Ease of Use* (EOU) dan *Perceived Usefulness* (PU) terhadap *Intention to Use* (INT) dalam adopsi *smart home*; mengukur prioritas dalam adopsi *smart home* oleh pengembang perumahan di Kabupaten Cilacap dan Indonesia. Penelitian ini menggunakan *mix method*, metode kuantitatif melalui *network analysis, PLS-SEM, and relative importance index* yang bersifat eksploratori. Metode kualitatif bersifat konfirmatori dari studi kasus pengembang yang telah mengadopsi *smart home.*

Hasil penelitian menunjukkan perumahan cenderung berkembang keluar inti aglomerasi akibat tingginya harga tanah di inti aglomerasi. Namun, akses menuju aglomerasi, fasilitas, kesehatan, dan pendidikan tetap terjangkau. Analisis *PLS-SEM* dan *Relative Importance Index* mengindikasikan bahwa pengembang lebih memprioritaskan aspek kemudahan penggunaan *smart home* dibandingkan kegunaan yang dirasakan. Penelitian menemukan bahwa memasarkan rumah dengan *smart home* memiliki *value added* dan lebih mudah dibandingkan rumah konvensional. Studi kasus menunjukkan bahwa pengembang menerapkan konsep *Triple Bottom Line* yang mencakup aspek *profit, social, and environment* untuk mendukung *sustainability*.

Kata kunci: Aglomerasi, Properti Berkelanjutan, *Internet of Things, TAM, PLS-SEM, Triple Bottom Line*

ABSTRACT

The phenomenon of industrial agglomeration significantly impacts urban area development, both positively and negatively. On one hand, agglomeration enhances economic efficiency and accelerates regional growth. However, it also triggers rising land prices and population density, potentially lowering the quality of life. The implementation of the Internet of Things (IoT) in the form of smart homes is proposed as an innovative solution to support sustainability.

This study aims to analyze housing accessibility to agglomeration centers, healthcare facilities, and educational institutions; examine the relationships between Ease of Use (EOU), Perceived Usefulness (PU), and Intention to Use (INT) in smart home adoption; and assess priorities for smart home adoption among housing developers in Cilacap Regency and Indonesia. A mixed-method approach is employed, with quantitative methods including network analysis, PLS-SEM, and the Relative Importance Index for exploratory purposes, while qualitative methods provide confirmatory insights through case studies of developers who have adopted smart homes.

The findings reveal that housing tends to expand outward from the agglomeration core due to high land prices, yet access to agglomeration centers, healthcare, and educational facilities remains manageable. PLS-SEM and the Relative Importance Index analyses indicate that developers prioritize ease of use in smart homes over perceived usefulness. Additionally, marketing smart homes is found to value added and is more effective compared to conventional homes. The case studies highlight developer's adoption of the Triple Bottom Line concep encompassing profit, social, and environmental aspects to support sustainability.

Keywords: *Agglomeration, Sustainable Property, Internet of Things, TAM, PLS-SEM, Triple Bottom Line*