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Deciphering Property Crime Through OLS Regression: A Demographic Study

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ABSTRACT

This study explores the correlation between property crime and demographic factors in Kuala Lumpur and Putrajaya using spatial autocorrelation (SA) and ordinary least squares (OLS) regression from 2015 to 2020. The 2016 SA analysis shows a significant increase in Moran's I index (0.012905), with a positive z -score of 2.020088 and a p value of 0.043374, indicating spatial clustering of crime. The study examines how factors like total population, household areas, residential areas, male populations and female populations influence number of property crime cases, revealing varying relationships year by year. By highlighting fluctuations in R -squared and F -statistic values, this research challenges static crime models, advocating for adaptable, data-driven strategies in crime prevention. These findings emphasize the importance of continuous policy adjustments to address the evolving socio-economic dynamics of urban areas.