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IS GREEN A PREMIUM? AN INVESTIGATION ON THE IMPACT OF URBAN PARK ON HOUSING PRICE

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Abstract

Urban green spaces are increasingly recognised as an important element of residential development. In line with this, this study aims to quantify the extent to which urban park landscape features contribute to housing prices. This study utilized residential transaction data spanning from 2016 to 2023 across three major housing areas, incorporating both conventional and modern landscape designs. This study employs hedonic price modelling to estimate the green premium via Ordinary Least Squares regressions. The findings suggest a positive correlation between housing prices and the presence of urban parks, indicating the existence of a “green premium”. The research contributes to the literature by providing empirical evidence of the urban park landscape's economic value in the housing market. It underscores the critical role of urban park landscape in shaping the economic dynamics of the housing market. It provides valuable insights for urban planners, valuers, financial institution and policymakers in advocating for a holistic approach to urban development that harmonizes economic objectives with environmental and aesthetic considerations.

Keywords: Housing Price, Landscape, Green Premium, Urban Park, Hedonic Pricing Modelling

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INTRODUCTION

Urban landscapes, particularly urban green spaces such as parks, gardens and tree-lined streets, play an important role in shaping the aesthetic quality and environmental performance of residential areas (Chen et al., 2022), enhancing the liveability of urban environments (Zambrano-Monserrate et al., 2021). These green elements provide ecological and well-being benefits, including recreation, psychological restoration and urban environmental regulation which are often perceived as valuable by residents and therefore may be reflected in property values (Chen et al., 2022). Essentially, a sustainable urban park will ensure accessibility, safety, social interaction, aesthetic quality, resilience and economic viability (Nik Hashim et al., 2025). The capitalization of green amenities into housing prices is commonly explained through the idea that households reveal willingness-to-pay for desirable locational and neighbourhood attributes in the housing market (Chen et al., 2022; Liu et al., 2024). In our case, willingness to pay more for residing nearby to the urban park (Zhou et al., 2021).

Evidently, while we are entering the recovering the post-COVID 19 period, recent research suggests renewed attention to parks and open spaces as daily-life infrastructure, particularly for outdoor activities (Yang et al., 2024; Zhao et al., 2023). Evidence also indicates that the relationship between proximity to parks and housing values can change over time and context. For instance, during the pandemic's early stages, properties closer to parks could experience weaker or even negative effects due to concerns such as noise or perceived health risks, whereas during recovery periods the preference for outdoor access may strengthen the positive capitalization of park proximity (Yang et al., 2024). Such findings imply that green premiums may not be fully stable and can depend on social conditions and park usage patterns (Yang et al., 2024; Zhao et al., 2023).

Empirical studies investigating the impacts of urban green environments on housing prices have frequently applied hedonic pricing methods, using distance to parks or surrounding greenery as a central measure of accessibility and amenity value (Chen et al., 2022; Chen et al., 2023; Saleh et al., 2025). Many studies report a distance-decay relationship in which the effect of green space tends to be stronger for residences located closer to green spaces and weaker as distance increases (Bottero et al., 2022; Chen et al., 2023; Liu et al., 2024). Recent methodological work further suggests that green-space capitalization often operates within identifiable spatial thresholds (e.g., within about 1 km in certain contexts), encouraging the use of ring-based measures and improved identification strategies (Liu et al., 2024). Beyond proximity, research also shows that green space characteristics such as spatial configuration and distribution strategies (e.g., dispersed neighborhood greenery versus centralized large parks) can influence housing value outcomes (Li et al., 2024).

Nevertheless, a key limitation in the existing literature is the relative lack of studies examining how urban greenery affects housing prices within gated and guarded housing schemes. As defined by Blakely & Snyder (1997), a gated and guarded housing scheme is a residential area that has restricted access in which normal public spaces are privatized. Gated communities typically restrict access through physical barriers and controlled entrances, and they often include internally managed shared amenities (Levin et al., 2026). Because gated communities may offer privately maintained landscapes and facilities, the marginal value of external public greenery may differ from that in non-gated neighbourhoods (Levin et al., 2026). This further suggests that internal landscaping and shared facilities may partially substitute for external parks, while large public parks may still provide unique benefits not replicated inside gated schemes (Levin et al., 2026; Yang et al., 2024). Hence, the urban landscape influences housing prices for this gated and guarded housing scheme is unique and is worth investigating, alongside contributing to the existing literature.

Accordingly, this study contributes to the discussion on the impact of urban greeneries on housing prices by estimating the green premium via a hedonic pricing model. The green premium is examined through (i) neighbourhood park which located within the respective gated and guarded housing scheme, (ii) central park whereby the park facilities and amenities will be enjoyed by not only residents but also opened to public and (iii) football field which is an open space field primarily used for football or other similar recreation activities. Following the established practice as adopted in previous studies, the distance between residential units and parks is adopted as a proxy for green amenity capitalization, with the expectation that units closer to parks exhibit higher prices. On top of that, this study captures greenness intensity by estimating “green catchment” exposure within a near-field buffer of the residence, consistent with recent attention to improving greenness measurement beyond single proximity indicators (Liu et al., 2024; An et al., 2023).

Overall, the study is among early contributions explicitly considering gated and guarded schemes when examining how green amenities are capitalized into housing prices, thereby extending existing evidence on green premiums into a distinctive residential governance setting (Levin et al., 2026). The remainder of the article is organized as follows: a literature review session to acknowledge the recent trend of empirical studies while highlighting the literature gap, then, the study area and methodology are described in the Research Method section, followed by findings and discussion, before concluding remarks.

URBAN LANDSCAPE AND HOUSING PRICES

Urban landscape can be defined as the integrated physical and experiential character of the built and natural environment in cities. In terms of physical characteristics, it refers to built-up areas, including size, density, configuration

and network structure where these features summarize how cities are spatially organized (Rezaei & Millard-Ball, 2023). Meanwhile, the term landscape is not only at its material form but also what is being seen, interpreted and evaluated by people as visual characteristics of the built environment shape how people perceive and experience cities (Ito et al., 2024). Essentially, urban visual perceptions vary across demographics and personalities, implying that urban landscape is partly constituted through human evaluation of urban scenes rather than physical attributes alone (Quintana et al., 2025). This idea is operationalized by treating urban landscape quality as a multidimensional construct that can be assessed via user perception across spatial and aesthetic attributes, alongside the cultural and service dimensions (Huang et al., 2025).

In assessing the impacts of urban landscape on housing prices, urban landscape is generally being categorised into five categories that reflect distinct channels through which urban environments may be capitalized into property values. Firstly, is the category of morphological and structural landscape. This category of landscape includes street-network structure, density and built landscape configuration that widely used in urban measurement and comparative analyses (Rezaei & Millard-Ball, 2023). Secondly, the functional and land-use landscape which predominantly refer to the land-use mix and intensity that define the urban character. While landscape is a unique and identifiable pattern of elements that recurs across areas, the urban character descriptions often incorporate function and transportation alongside other attributes like social features (Mou et al., 2023). The third category is ecological (green and blue) landscape, referring to greenery and water elements that structure urban environmental amenity. The greenery and water landscape constitute a major, recurring physical aspect that being studied in relation to how cities are experienced (Ito et al., 2024). Another category is the visual-perceptual landscape, focusing on streetscape appearance and scenic view that shape individual's subjective evaluations. Yet, visual features of built environment are a central driver of perceived urban experience (Ito et al., 2024) and that such perception is vary systematically across population groups (Quintana et al., 2025). Finally, the fifth category is cultural and identity related landscape. This type of landscape instils cultural meaning, place identity and heritage-related qualities to the citizens. Evidently, the cultural perception from spatial and aesthetic perception are different when assessing urban landscape quality (Huang et al., 2025). In this study, we are focusing only on the urban park in understanding how urban landscape may influence housing price.

In terms of its influence on housing price, urban landscape affects residential property values generally via amenity capitalization, whereby households' willingness to pay for a house reflects not only the structure itself but also the bundle of nearby environmental and design attributes (Bishop et al.,

2020). Essentially, how environmental amenity being perceived and used by public will influence its impact on property value (An et al., 2023). In hedonic pricing modelling, proximity to parks, open space and other urban green or blue features is repeatedly associated with price premium because these landscapes provide recreational access, aesthetic enjoyment and environmental functions that assumed to foster the housing demand (Brander & Koetse, 2011). The interpretation of amenity benefits can be localized and mediated by accessibility and neighbourhood context (Liu et al., 2024). Empirical evidence indicates that housing prices increase as distance to urban open space decreases, and that the magnitude of capitalization varies with contextual factors such as population density and open space type (Brander & Koetse, 2011; Chen et al., 2023). Nevertheless, it is worth acknowledged that the influence of urban parks on housing price is limited by its effective range (Daams et al., 2019).

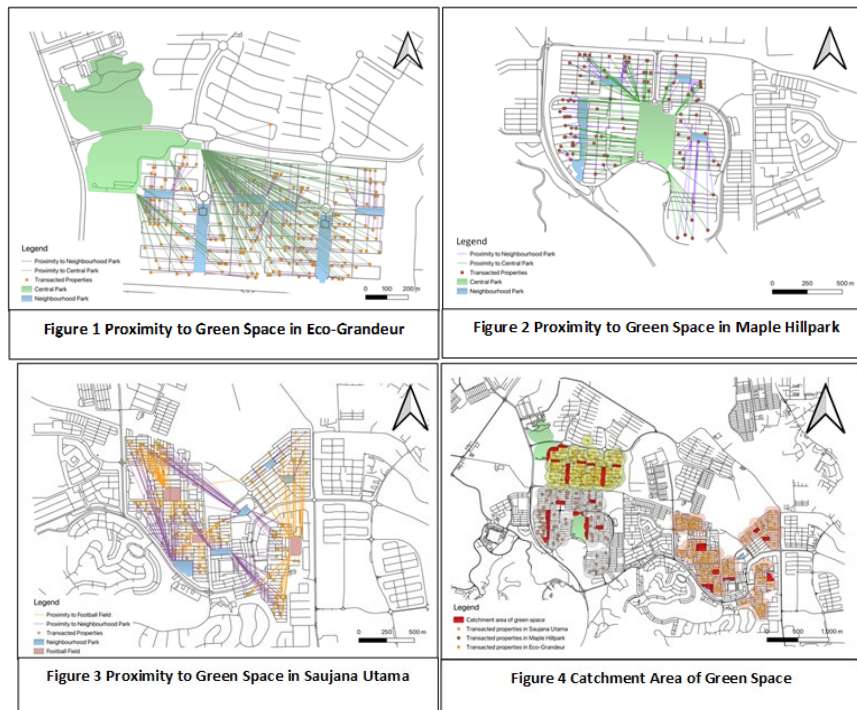
Importantly, the premium is also depending on landscape condition and management in which well-maintained, safe and accessible green spaces tend to generate stronger price effects than neglected or nuisance generating spaces, consistent with review evidence that park impacts vary by park type and use intensity (Brander & Koetse, 2011). This further implies that urban green landscape is valued as a functional amenity rather than a general land cover (Chen et al., 2022). Recent study by Russell and Kweon (2025) acknowledged a price premium of 8.69% to 8.96% for a community managed park. By considering gated guarded housing scheme in the analysis, this study is in line with the literature in which it is generally being assumed that urban park will be in better condition and management within the gated guarded community as management fees paid by residents are covering the maintenance of the park.

RESEARCH METHODOLOGY

This study uses manageable randomized samples to generalize the findings to larger populations. The range of secondary market transacted data are collected starting from 2016 – 2023 which sited in Puncak Alam, it consists of Eco-Grandeur Project, Maple Hillpark Project and Saujana Utama Project. There are three rational for us to select these housing schemes. Firstly, all three housing schemes are located within the newly emerging township of Puncak Alam in which this allows comparison within a relatively similar local housing market. Secondly, all these housing schemes are offering landed properties, making them suitable for examining the potential influence of urban green park on housing prices based on proximity distance as compared to high-rise residential. Thirdly, these three housing schemes represent a different in green spaces provision. The Eco-Grandeur project represents a newer master planned housing scheme with the provision of dedicated landscape and central park amenities; on the other hand, Mapple Hillpark project featuring eco-themed development with a relatively smaller central park but well planned jogging paths and cycling tracks

on its neighbourhood park; lastly, Saujana Utama project is a more established and mature housing scheme with open spaces as the greenery space rather than dedicated planned green space in Eco-Grandeur project and Maple Hillpark project. As these three housing schemes are located within the same suburban growth corridor, these three housing schemes provide a suitable comparative basis for examining how proximity and green catchment area varies across these housing schemes may influence the housing prices while maintaining reasonable similarity in location and local housing context.

The location of each housing scheme is presented using QGIS together with the transaction data. The green spaces were identified and digitalised as a polygon layer in the application of GIS. Figure 1 to Figure 4 illustrates the distribution of transaction data and green spaces.



This study explored the relationship between the urban greeneries landscape and housing prices for estimating the “green premium” which exert in a housing project. There are two aspects that are used to measure the green premium. Firstly, the proximity to green space such as central park, neighborhood park and football field. It is hypothesized that the proximity to green space has an inverse relationship with the property prices. In other words, the property

prices are expected to decrease if they are located further away from the green space. Secondly, the catchment area of green space for 100m buffer of residential property is computed. This factor expects the property prices to increase based on the size of catchment area for the green space. Residents are willing to pay a premium for gaining more green space in the surroundings. This is another unique consideration for green density of the landscape within the study area. Hypothetically, having more green space is beneficial to the residents in terms of better view, meanwhile, it contributes to residents' psychological needs satisfaction and attachment to the natural landscape (Landon *et al.*, 2021). The 100m distance was selected as this distance is a close and direct exposure zone of housing to the green spaces. Importantly, this is a common practice (Liu *et al.*, 2025) and being empirical proven in similar studies setting such as Bräuniger *et al.* (2010) and Shen *et al.* (2015).

This study employs four models to validate the proposed hypothesis. The green premium is first estimated using baseline OLS hedonic models for diagnostic purposes, while the final reported estimates adopt spatial econometric models where spatial dependence is detected. This method has frequently been used to estimate static versions of the model, in which property values are the dependent variable and the independent variables are a collection of qualities or traits expected to affect property prices (Garay *et al.*, 2022). There are various types of properties traded at various times, making it difficult to establish the green premium solely based on the price change of properties without considering their quality. There are four hedonic price models established in this study.

Model 1: Basic Hedonic Price Model for Saujana Utama

$$\ln Price_{it} = \beta_0 + \delta_1 Football_field_catchment_{it} + \delta_2 Football_field_proximity_{it} + \delta_3 Neighbourhood_park_catchment_{it} + \delta_4 Neighbourhood_park_proximity_{it} + \beta_k Z_{it} + \theta_k Year_{it} + \varepsilon_{it} \quad (1)$$

Model 2: Basic Hedonic Price Model for Maple Hillpark

$$\ln Price_{it} = \beta_0 + \delta_1 Central_park_catchment_{it} + \delta_2 Central_park_proximity_{it} + \delta_3 Neighbourhood_park_catchment_{it} + \delta_4 Neighbourhood_park_proximity_{it} + \beta_k Z_{it} + \theta_k Year_{it} + \varepsilon_{it} \quad (2)$$

Model 3: Basic Hedonic Price Model for Eco-Grandeur

$$\ln Price_{it} = \beta_0 + \delta_1 Central_park_catchment_{it} + \delta_2 Central_park_proximity_{it} + \delta_3 Neighbourhood_park_catchment_{it} + \delta_4 Neighbourhood_park_proximity_{it} + \beta_k Z_{it} + \theta_k Year_{it} + \varepsilon_{it} \quad (3)$$

Model 4: Basic Hedonic Price Model for Quality of Green Space

$$\ln Price_{it} = \beta_0 + \delta_1 Central_park_catchment_{it} + \delta_2 Neighbourhood_park_catchment_{it} + \delta_3 Football_field_catchment_{it} + \beta_k Z_{it} + \theta_k Year_{it} + \varepsilon_{it} \quad (4)$$

Table 1: List of Variables

$\ln Price_{it}$	= Transacted Price in logarithm form (RM) for i property at period t
$Central_park_catchment_{it}$	= Catchment area of central park (m ²) for i property at period t
$Neighbourhood_park_catchment_{it}$	= Catchment area of neighbourhood park (m) for i property at period t
$Football_field_catchment_{it}$	= Catchment area of football field for i property at period t
$Central_park_proximity_{it}$	= Proximity to central park for i property at period t
$Neighbourhood_park_proximity_{it}$	= Proximity to neighbourhood park for i property at period t
$Football_field_proximity_{it}$	= Proximity to football field for i property at period t
Z_{it}	= Property attributes for i property at period t
$Year_{it}$	= Transacted period for i property at period t
δ_k	= Regression coefficient for k number of green elements
β_k	= Regression coefficient for k number of property attributes
θ_k	= Time effect of transacted period

Source: Authors' Compilation

Table 2: Results for Diagnostic Tests

Diagnostic Test	Model 1 (Maple Hillpark)	Model 2 (Saujana Utama)	Model 3 (Eco-Grandeur)	Model 4 (Combined Model)	Interpretation
Maximum VIF	2.62	2.65	2.50	2.74	All VIF values are below 5, indicating no multicollinearity.
Breusch–Pagan Test	p = 0.272	p = 0.365	p = 0.017	p < 0.001	Models 1 and 2 satisfy homoscedasticity, whereas Models 3 and 4 exhibit heteroscedasticities. Robust standard errors were therefore reported for the OLS estimates.
White Test	p = 0.079	p = 0.298	p = 0.032	p < 0.001	Consistent with the Breusch–Pagan results. Heteroscedasticity is only evident in Models 3 and 4.
Jarque–Bera Test	p = 0.197	p = 0.835	p = 0.399	p = 0.038	Residuals are approximately normally distributed in Models 1–3. Model 4 shows a slight departure from normality, which is acceptable given the large sample size (N = 534).
OLS Residual Moran's I	p < 0.001	p = 0.0016	p = 0.644	p < 0.001	Significant spatial autocorrelation remains in Models 1, 2 and 4, indicating that OLS is inadequate. Model 3 shows no significant global residual spatial autocorrelation.
Robust Rao's Score Error	p < 0.001	p = 0.031	p = 0.017	p < 0.001	Supports the Spatial Error Model (SEM) for Models 1, 2 and 4.
Robust Rao's Score Lag	p < 0.001	p = 0.819	p < 0.001	p = 0.751	Supports the Spatial Lag Model (SLM) only for Model 3.
Selected Spatial Model	SEM	SEM	SLM	SEM	Selected based on robust Rao's Score tests, AIC, log-likelihood and residual Moran's I.

Residual Moran's I (Final Model)	p = 0.620	p = 0.463	p = 0.955	p = 0.714	Residual spatial autocorrelation is successfully removed in all final models.
Best AIC	SEM	SEM	SLM	SEM	The selected model achieves the lowest AIC among competing specifications.

Source: Authors' Computation

Model 1 – 3 are the individual hedonic price models for three housing schemes with different levels of landscape design: Model 1 for Maple Hillpark, Model 2 for Saujana Utama and Model 3 for Eco-Grandeur. Saujana Utama is the oldest residential area where minimal landscape was built. Then follow by the Maple Hillpark which has included a lifestyle concept in the development such as neighbourhood park and central park. However, these amenities are not extensive compared to the housing scheme in Eco-Grandeur. A quality neighbourhood park and central park is important in promoting interactive activities and providing psychological support within the community. The green premium will be assessed based on the proximity to the amenities and also the catchment area of green space. Additionally, this study will also examine the quality of green space through Model 4. This model comprises all three housing schemes and the quality of green space is evaluated based on the catchment area of neighbourhood park, central park and football field. These three variables are the interactive terms that are associated with the quality of landscape in the respective housing schemes.

FINDINGS AND DISCUSSION

Prior to further data analysis, 54 data had been removed due to extreme values, missing address information, non-arm's length transaction and only transaction of shares instead of whole unit transactions. Table 3 depicts the comparison of hedonic price models for green premium in Puncak Alam were covering three main housing schemes, Model 1- Maple Hillpark, Model 2 - Saujana Utama, Model 3 - Eco-Grandeur, respectively. Subsequently, the quality of green premium is assessed through Model 4. Saujana Utama is the oldest housing scheme among the three examined housing scheme, and it serves as a comparable in this model. These models have examined the urban greenery elements that could contribute to the housing prices.

The green premium is measured from two perspectives. First, consider the proximity to neighbourhood park, central park and football field, then proceed to assess the area covered by green spaces within a 100-meter radius distance around residential properties. For catchment result interpretation, the measure is with every 1000m² density. As shown in Table 3, the catchment area of central park appears to be significant in Model 4. Based on the coefficient of 0.00000216, every additional 1000m² of central park catchment area is associated with an

approximate 0.216% uplift in housing price, assuming the variable is measured in square metres, and the dependent variable is in logarithmic form.

The results presented in Table 3 demonstrate that the influence of green space attributes on housing prices across the three residential developments. Across all four models, land area consistently exhibits a positive and statistically significant effect on housing prices, indicating that larger lot sizes command higher market values. Built-up area is also positively associated with property prices in Saujana Utama, Eco-Grandeur, and the combined model, although it is insignificant in Maple Hillpark. Regarding the green space variables, the findings indicate that their effects are development specific. In Maple Hillpark, only the distance to neighbourhood park is positively and significantly associated with property prices, while the central park area, neighbourhood park area, and distance to the central park are not statistically significant. This positive coefficient runs counter to the hypothesised inverse proximity relationship and suggests that, in this case, being farther from the neighbourhood park is associated with higher prices, potentially reflecting development specific factors such as privacy, traffic, noise or lot-position effects. In Saujana Utama, none of the green space variables, including neighbourhood park area, football field area, and the associated proximity measures, significantly influence property prices. Similarly, in Eco-Grandeur, neither the green space areas nor the proximity variables are statistically significant after accounting for spatial dependence.

Table 3: Comparison of Hedonic Price Models for Green Premium

Variables	Model 1 (Maple Hillpark)	Model 2 (Saujana Utama)	Model 3 (Eco-Grandeur)	Model 4 (Quality of Green Space)
Dependent Variable: ln(Price)				
Independent Variables				
Constant	12.777***	12.1550 ***	10.2820***	12.7060***
Land Area	0.002622***	0.001674***	0.002799***	0.002590***
Built up Area	0.000334	0.003654 ***	0.000747**	0.002214***
Saujana	-	-	-	-0.44934***
Maple Hill	-	-	-	-0.18090***
Year Effects				
2017	0.1031***	0.01617	—	—
2018	0.0336***	0.02004	—	—
2019	0.0165	0.05351	-0.00709	0.02723**
2020	-0.0622***	0.09908***	-0.11073***	-0.02380**
2021	-0.0486***	0.10527 ***	-0.10389***	-0.03941***
2022	0.0021	0.16227***	-0.06407**	0.02056
Green Space Variables				
Central_Park (m ²)	-0.0000017	—	0.00000493	0.00000216*
Neighbourhood_Park (m ²)	-0.0000020	-0.00000758	0.00000330	-0.00000086
Football Field (m ²)	—	-0.00000453	—	-0.00000745
Proximity Variables				
Distance to Central Park	-0.000126	—	-0.000028	—

Distance to Neighbourhood Park	0.000219***	-0.00000972	0.000041	–
Distance to Football Field	–	0.00001702	–	–
Model Fit				
Spatial lag coefficient	-	-	0.19835***	-
Spatial Error Coefficient	0.6402***	0.38781***	-	0.41548***
MSE	0.002593344	0.004462564	0.003730762	0.006384
Sample Size (N)	155	185	228	534

Remarks: * Significant at 10% level, ** significant at 5% level, *** significant at 1% level.

Source: Authors' Computation

The combined Spatial Error Model, which integrates all three housing developments, indicates that only the central park area has a marginal positive effect on housing prices ($p < 0.10$), whereas neighbourhood park area and football field area are not statistically significant. This finding further strengthens the impacts from the associated activities and use of urban park in determining housing price premium is essential (Brander & Koetse, 2011; Chen et al., 2022; Chen et al., 2023). These findings suggest that the contribution of green space attributes is not consistent across different housing developments. The township dummy variables in the combined model further reveal significant price differentials among the developments. Relative to Eco-Grandeur, properties located in Saujana Utama and Maple Hillpark exhibit significantly lower housing prices after controlling for structural housing characteristics, temporal effects, and green space attributes.

From the spatial econometric perspective, the preferred model differs across the case studies. The Spatial Error Model (SEM) provides the best model fit for Maple Hillpark, Saujana Utama, and the combined dataset, whereas the Spatial Lag Model (SLM) is preferred for Eco-Grandeur. This indicates that spatial dependence is present in all housing developments but is characterised by different spatial processes. Overall, the results demonstrate that structural housing characteristics exert a more consistent influence on housing prices than green space variables, while the pricing effects of green spaces vary according to the characteristics of individual residential developments. This provides alternative facet of the impact of the size of urban greeneries landscape on housing prices whereby larger natural made greeneries (such as forest and national park) will likely to be appreciated by the residents (Tyrväinen and Miettinen, 2000; and Trojanek et al., 2018).

CONCLUSION

By considering the characteristic of gated and guarded housing scheme arrangement, this study examines the impact of urban greeneries landscape on the housing prices and examine its green premium via two perspectives. Firstly, this study demonstrates that the impact of urban green spaces on housing prices is development-specific rather than universal. The significance of proximity and

catchment area variables differs across the three residential developments after controlling for spatial dependence. Secondly, the combined spatial model indicates that structural housing characteristics exert a more consistent influence on housing prices than green space attributes. Among the green space variables, only the central park area exhibits a marginal positive effect, suggesting that the economic value of urban green spaces depends more on their quality and contextual characteristics than on their size alone. In line with this, we claim that our findings have contributed to the planning policy and valuation practices. In terms of planning contribution, while open space is recognised as an integral part of residential development where there is a requirement of 10% open space mandatory requirement for residential development, our findings further indicate that there is a need to carefully design and provide landscape that cater for noise and privacy in mitigating the potential negative externalities of urban greeneries landscape rather than just comply to the allocation. Furthermore, our findings further indicate that green spaces should not be treated as residual land or merely for the planning compliance, in fact, green spaces are contributing to the housing value. We provide an empirical finding via a GIS-based proximity measurement and catchment green area analysis for assessing the nearby green spaces contribution to residential value variation. This is consistent with valuation practises whereby neighbourhood characteristics are relevant in property valuation considerations.

However, this study is not without limitation. First, the type of facilities offered by the urban park is not considered whereby future studies may consider including these as a service quality of urban park to the neighbourhood residents. Secondly, this study overlooks residents' visit to urban park in which the frequency of visit may influence the price premium for those frequently visited parks may perceive convenience in residing nearby the park, thus, willing to pay more for the premium. Thirdly, we shall acknowledge the possibility of endogeneity of our findings in which a better planned housing scheme may have both higher quality green spaces and higher housing prices. Nevertheless, to address this, we had selected three housing schemes represent different quality level of green spaces. Additionally, selecting the housing scheme within the same suburban area minimise the bias due to different locality features. During the analysis, we had also control for the housing attribute in reducing the bias. Nevertheless, we acknowledge that the findings shall be interpreted carefully as an association between green space and housing price rather than a purely causal effect finding.

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