

**ANALYSIS OF FACTORS INFLUENCING THE GROSS INCOME MULTIPLIER
INDEX OF APARTMENTS IN THE SUPERBLOCK AREA OF WEST JAKARTA**

**ANALISIS FAKTOR-FAKTOR YANG MEMENGARUHI INDEKS GROSS
INCOME MULTIPLIER APARTEMEN DI KAWASAN SUPERBLOK
JAKARTA BARAT**

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ABSTRACT

The apartment market in metropolitan cities, particularly within superblock developments, has experienced significant growth due to increasing urbanization, changing lifestyles, and demand for integrated residential facilities. However, determining apartment values accurately remains challenging because of differences in occupancy rates, housing quality, and rental income data. The Gross Income Multiplier (GIM) is widely recognized as a simple and practical valuation tool in the income approach for estimating the market value of income-producing properties. This study aims to analyze the factors affecting the Gross Income Multiplier (GIM) index of apartments located in the Superblock Area of West Jakarta, specifically within the Podomoro City complex. The variables examined include distance to shopping mall, apartment unit size, number of bedrooms, floor level, view, compass orientation, furnished condition, and sky garden availability. This research employed a quantitative descriptive method using purposive sampling. The study analyzed 81 apartment units distributed across four apartment complexes. Data were collected through direct interviews and secondary data from online sources. Multiple linear regression analysis was applied to evaluate the influence of the independent variables on the GIM index. The findings indicate that apartment unit size and sky garden have a positive and significant effect on the GIM index, while furnished condition has a negative and significant effect. Distance to shopping mall, number of bedrooms, view, and compass orientation show positive but insignificant effects, whereas floor height has a negative and insignificant effect on the GIM index. Simultaneously, all independent variables significantly affect the GIM index. The average GIM index of apartments in the Superblock Area of West Jakarta was found to be 18.54. This study contributes to the literature on apartment valuation and provides practical implications for investors, property appraisers, and property managers in determining apartment investment value in integrated urban developments.

Keywords: Gross Income Multiplier, apartment valuation, superblock area, property investment, multiple linear regression.

ABSTRAK

Pasar apartemen terutama di dalam kawasan superblok terdapat peningkatan permintaan terhadap hunian terintegrasi dengan fasilitas yang lengkap, namun menghadapi tantangan diantaranya variasi kualitas hunian, perbedaan Tingkat hunian dan inkonsistensi data pendapatan yang menyulitkan penentuan nilai apartemen secara akurat. Gross Income Multiplier (GIM) dalam penilaian properti merupakan salah satu metode dalam pendekatan pendapatan. Gross Income Multiplier (GIM) dapat digunakan sebagai alat cepat dan sederhana untuk mengestimasi nilai pasar properti produktif. Penelitian ini bertujuan untuk menganalisis dan mengukur faktor-faktor yang mempengaruhi Indeks Gross Income Multiplier (GIM) pada apartemen di kawasan Superblok, Jakarta Barat. Faktor-faktor tersebut adalah jarak ke shopping mall, luas unit, jumlah kamar tidur, tinggi lantai, view/pemandangan, orientasi hadap mata angin, furnished/berperabot, dan sky garden. Penelitian ini merupakan penelitian deskriptif kuantitatif, Teknik pengambilan sampel dalam penelitian ini menggunakan purposive sampling, dengan jumlah sampel sebanyak 81 unit apartemen yang tersebar pada empat kompleks apartemen. Data yang digunakan adalah data primer melalui wawancara langsung dan data sekunder yang berasal dari internet. Metode analisis data adalah regresi linear berganda. Hasil penelitian menunjukkan bahwa luas unit apartemen dan sky garden mempengaruhi secara positif dan signifikan terhadap indeks GIM dan furnished mempengaruhi secara negatif dan signifikan terhadap indeks GIM. Sementara jarak ke shopping mall, jumlah kamar tidur, view/pemandangan, dan orientasi hadap mata angin mempengaruhi positif namun tidak signifikan terhadap indeks GIM, serta tinggi lantai mempengaruhi secara negatif namun tidak signifikan terhadap indeks GIM.

Secara simultan, seluruh variabel independen terbukti berpengaruh signifikan terhadap indeks GIM. Indeks GIM rata-rata pada apartemen di Kawasan Superblok, Jakarta Barat adalah sebesar 18,54.

Kata Kunci: Gross Income Multiplier, investasi properti, kawasan superblok, karakteristik lokasi, regresi linear berganda

INTRODUCTION

Background of the Study

The rapid growth of metropolitan cities has fundamentally transformed urban residential patterns worldwide. In Jakarta, Indonesia's capital city, increasing urbanization, population density, traffic congestion, and land scarcity have accelerated the development of vertical housing such as apartments and mixed-use residential complexes. Apartments are no longer perceived solely as residential spaces but also as strategic investment instruments capable of generating both capital appreciation and rental income.

The increasing attractiveness of apartment investments has intensified the need for accurate, efficient, and market-responsive property valuation methods. In real estate valuation, the income approach is commonly applied to income-producing properties because it emphasizes the income-generating capability of real estate assets. One of the simplest yet widely recognized methods within the income approach is the Gross Income Multiplier (GIM).

The Gross Income Multiplier (GIM) is a valuation ratio calculated by dividing a property's market value by its annual gross income potential. Compared to more sophisticated valuation approaches such as Direct Capitalization and Discounted Cash Flow (DCF), the GIM method requires relatively limited data and offers faster estimations. Consequently, GIM is frequently used as a preliminary screening tool by investors and appraisers when evaluating commercial and residential investment properties.

Despite its practicality, the reliability of the GIM method strongly

depends on the availability of accurate and representative market benchmarks. In Indonesia, particularly in Jakarta's apartment market, benchmark studies related to GIM remain limited. This limitation becomes more evident in integrated superblock developments, where apartment valuation is influenced not only by physical unit characteristics but also by environmental integration, accessibility, lifestyle facilities, and urban design concepts.

Superblock Development and Apartment Market Dynamics

A superblock refers to a large-scale integrated urban development that combines residential apartments, shopping malls, office towers, hotels, entertainment facilities, and public infrastructure within a single area. This concept has become increasingly popular in Jakarta due to its ability to provide efficient urban living while reducing transportation dependency and commuting time.

One of the most prominent superblock developments in West Jakarta is Podomoro City, located in the strategic S. Parman corridor. The area integrates shopping centers, office buildings, hotels, apartment towers, green spaces, and entertainment facilities within approximately 25 hectares of land. Podomoro City contains several apartment complexes, including Mediterania Garden 1, Mediterania Garden 2, Royal Mediterania, Neo Soho Residence, Central Park Residence, and Madison Park.

Although these apartments are located within the same integrated environment, market performance and occupancy levels differ significantly

among them. Madison Park, for example, is one of the newest apartment developments and is located adjacent to Central Park Mall, one of Jakarta's largest shopping centers. Theoretically, proximity to commercial facilities should increase apartment attractiveness and investment value. However, empirical observations indicate that Madison Park demonstrates lower occupancy rates compared to older apartment developments within the same superblock area.

This phenomenon suggests that proximity to shopping malls alone may not sufficiently explain apartment investment performance. Other factors such as unit size, bedroom configuration, floor level, view quality, orientation, furnishing condition, and environmental amenities may play more important roles in influencing investor expectations and property value.

Research Gap

Previous studies regarding GIM have primarily focused on mature property markets and traditional commercial properties such as hotels, office buildings, warehouses, and conventional apartment complexes. Furthermore, most prior studies used market value as the dependent variable while treating GIM as an external multiplier. In contrast, this study positions the GIM index itself as the dependent variable to identify the determinants influencing variations in investment return expectations across apartment units.

Additionally, empirical research examining GIM within superblock apartment developments in emerging markets such as Jakarta remains extremely limited. Therefore, this study aims to fill this research gap by analyzing the determinants of GIM

within integrated superblock apartment environments in Indonesia.

Research Objectives

This study aims to:

1. Analyze the effect of distance to shopping malls on the GIM index.
2. Examine the effect of apartment unit size on the GIM index.
3. Investigate the effect of bedroom quantity on the GIM index.
4. Analyze the influence of floor level on the GIM index.
5. Evaluate the effect of apartment view orientation on the GIM index.
6. Examine the influence of compass orientation on the GIM index.
7. Analyze the effect of furnished condition on the GIM index.
8. Evaluate the influence of sky garden availability on the GIM index.
9. Analyze the simultaneous effects of all independent variables on the GIM index.

RESEARCH METHODS

Research Design

This study employed a quantitative descriptive research design aimed at analyzing the determinants affecting the Gross Income Multiplier index of apartments located within the Podomoro City Superblock area in West Jakarta.

Research Location

The research was conducted within the Podomoro City Superblock area, West Jakarta, Indonesia. Four apartment complexes with relatively similar market segments and physical characteristics were selected:

- Mediterania Garden 1
- Mediterania Garden 2
- Royal Mediterania
- Madison Park

Population and Sample

The population consisted of apartment units available for sale and rent within the selected apartment complexes. The sampling technique used was purposive sampling, where apartment units meeting specific investment and occupancy criteria were selected. A total of 81 apartment units were included in the analysis.

Data Collection

The study utilized both primary and secondary data:

- **Primary data:** Obtained through direct interviews with apartment owners, property agents, tenants, and building management personnel.
- **Secondary data:** Collected from online property listings, property market reports, developer publications, and related literature.

Research Variables

The dependent variable in this study was the Gross Income Multiplier (GIM) index. The GIM index was calculated using the following formula:

$$GIM = \frac{MV}{PGI}$$

Where:

- GIM = Gross Income Multiplier
- MV = Market Value of Property
- PGI = Potential Gross Income

The independent variables analyzed in this study were:

1. Distance to shopping mall
2. Apartment unit size
3. Number of bedrooms
4. Floor height
5. View/panorama
6. Compass orientation
7. Furnished condition
8. Sky garden availability

Data Analysis

The data analysis method used in this study was multiple linear regression analysis. Descriptive statistical analysis was first conducted to describe the characteristics of the research variables. Inferential statistical analysis was then applied to determine the influence of the independent variables on the GIM index. Classical assumption tests were also conducted, including:

- Normality test
- Multicollinearity test
- Heteroscedasticity test

The regression model used in this study was formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \epsilon$$

Where:

Y = Gross Income Multiplier (GIM)

α = Constant

β_1 - β_8 = Regression coefficient

X_1 = Distance to shopping mall

X_2 = Apartment unit size Luas unit

X_3 = Number of bedrooms

X_4 = Floor height

X_5 = View / panorama

X_6 = Compass Orientation

X_7 = Furnished Condition

X_8 = Sky garden availability

ϵ = error

RESULTS AND DISCUSSIONS

Descriptive Analysis

The study analyzed 81 apartment units distributed across four apartment complexes within the Podomoro City Superblock Area. The apartments exhibited varying characteristics in terms of distance to shopping malls, unit sizes, floor levels, number of bedrooms, furnishing conditions, and environmental facilities as stated below:

Descriptive Statistics

N	Minimum	Maximum	Mean	Std. Deviation
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distance to shopping malls	81	170	500	317.16	93.945
Apartment unit size	81	18.00	98.00	42.4444	12.87342
number of bedrooms	81	1	3	1.80	.621
floor height	81	1	36	18.69	9.205
View / panorama	81	0	1	.48	.503
Compass orientation	81	0	1	.28	.454
furnishing conditions	81	0	1	.74	.441
Sky garden availability	81	0	1	.44	.500
Gross Income Multiplier	81	11.1250	35.8696	18.540304	4.3841098
Valid N (listwise)	81				

The average Gross Income Multiplier (GIM) index of apartments in the Superblock Area of West Jakarta was 18.54. This value indicates that investors

require approximately 18.54 years of gross rental income to recover the market value of apartment investments as stated below:

Index GIM	Number of Apartment	%
11 s/d 15	17	20.99
16 s/d 20	48	59.26
21 s/d 25	10	12.35
26 s/d 30	4	4.94
31 s/d 35	2	2.47
Jumlah	81	100.00

Classical Assumption Tests

The classical assumption tests indicated that the regression model met the statistical requirements. The normality test showed that the residual data were normally distributed. The multicollinearity test indicated that no strong correlation existed among independent variables, while the

heteroscedasticity test confirmed that the variance of residuals remained constant.

Multiple Linear Regression Analysis

The regression analysis demonstrated that all independent variables simultaneously influenced the Gross Income Multiplier (GIM) index significantly. The data analysis shows the result as below:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.126	2.118		5.724	.000
	distance to shopping malls	.008	.004	.173	1.812	.074
	Apartment unit size	.106	.044	.312	2.415	.018
	number of bedrooms	.398	.922	.056	.432	.667
	floor height	-.068	.047	-.144	-1.450	.151
	View / panorama	.296	.796	.034	.372	.711
	Compass orientation	1.351	.951	.140	1.420	.160
	furnishing conditions	-3.303	.880	-.332	-3.755	.000
	Sky garden availability	4.116	.850	.469	4.844	.000

The model obtained in this research is as follow:

$$Y = 12.126 + 0.008 X_1 + 0.106 X_2 + 0.398 X_3 - 0.068 X_4 + 0.296 X_5 + 1.351 X_6 - 3.303 X_7 + 4.116 X_8$$

The regression results indicate that apartment unit size and sky garden availability positively and significantly influence the Gross Income Multiplier (GIM) Index. This suggests that larger apartment units and the presence of green open spaces increase the investment attractiveness and rental income potential of apartments within the superblock area.

Conversely, furnished condition demonstrates a negative and significant effect on the GIM Index. This finding implies that fully furnished apartments may involve higher initial investment and maintenance costs, thereby reducing investment efficiency relative to gross rental income.

Meanwhile, distance to shopping malls, number of bedrooms, floor level,

view/scenery, and compass orientation do not significantly affect the GIM Index. Although several of these variables show positive coefficients, their statistical significance levels exceed the 5% threshold, indicating insufficient empirical evidence to support their influence on apartment investment performance in the study area.

The simultaneous test (H9) reveals that all independent variables collectively have a significant effect on the GIM Index, with a significance value of 0.000. This finding confirms that apartment investment value in superblock developments is multidimensional and influenced by a combination of locational, physical, and environmental characteristics.

Based on the data analysis then the answer of the hypothesis is obtained as follows:

Hypothesis	Coefficient	Sig.	Decision
H1: Distance to shopping malls has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	0.008	0.074	Rejected
H2: Apartment unit size has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	0.106	0.018	Accepted
H3: Number of bedrooms has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	0.398	0.667	Rejected
H4: Floor level has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	-0.068	0.151	Rejected
H5: View/scenery has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	0.296	0.711	Rejected

Hypothesis	Coefficient	Sig.	Decision
H6: Compass orientation has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	1.351	0.160	Rejected
H7: Furnished condition has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	-3.303	0.000	Rejected
H8: Sky garden availability has a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	4.116	0.000	Accepted
H9: All independent variables simultaneously have a positive and significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock Area, West Jakarta.	0.398	0.000	Accepted

Effect of Distance to Shopping Mall on GIM

The results showed that distance to shopping mall had a positive but insignificant effect on the GIM index. This finding indicates that proximity to shopping malls alone does not necessarily determine apartment investment attractiveness. This phenomenon is particularly visible in Madison Park Apartment, which despite being located closest to Central Park Mall, still recorded relatively lower occupancy rates.

This finding differs from several previous studies suggesting that proximity to commercial facilities positively affects property values. The result implies that apartment investment decisions in superblock areas are influenced by more complex factors beyond accessibility alone.

Effect of Apartment Unit Size on GIM

Apartment unit size had a positive and significant effect on the GIM index. Larger apartment units tend to generate higher market values and rental income

potential. Investors generally perceive larger units as offering greater utility, flexibility, and comfort.

This result is consistent with previous studies conducted by Janssen and Soderberg (2000), Nguyen et al. (2020), and Razali et al. (2022), which found that larger building sizes significantly increase property values and GIM indices.

Effect of Number of Bedrooms on GIM

The number of bedrooms positively influenced the GIM index, although the effect was statistically insignificant. Apartments with more bedrooms generally provide higher utility for families and tenants requiring additional space. However, within the superblock context, the number of bedrooms may not be the primary determinant of investment value because buyers may prioritize location, facilities, and accessibility.

Effect of Floor Height on GIM

Floor height showed a negative but insignificant effect on the GIM index. Although higher floors are often associated with better views and prestige, some tenants may avoid upper floors because of higher temperatures, energy consumption, or elevator dependency.

The findings support Hwang and Ma (2023), who found that apartments located on higher floors may experience price discounts due to higher energy usage and environmental discomfort.

Effect of View/Panorama on GIM

The apartment view variable positively influenced the GIM index but did not produce a statistically significant effect. Apartments with views of swimming pools, gardens, or cityscapes generally attract higher interest from tenants and buyers. However, the influence of view alone may not be sufficient to significantly alter investment returns.

Effect of Compass Orientation on GIM

Compass orientation showed a positive but insignificant effect on the GIM index. Units facing certain directions may offer advantages in natural lighting and energy efficiency. However, the results indicate that orientation was not a dominant factor influencing apartment investment value within the study area.

Effect of Furnished Condition on GIM

Furnished condition had a negative and significant effect on the GIM index. This result suggests that furnished apartments tend to have higher maintenance costs, depreciation risks, and replacement expenses, which may reduce investment attractiveness from the perspective of long-term returns.

This finding differs from studies conducted in other countries where furnishing positively influenced apartment prices. The result may reflect differences in tenant preferences and investment behavior in the Jakarta apartment market.

Effect of Sky Garden on GIM

Sky garden availability had a positive and significant effect on the GIM index. Green open spaces and sky gardens provide additional environmental and lifestyle value for apartment residents. In densely populated urban areas, green spaces contribute to comfort, aesthetics, and healthier living environments.

This finding supports Yuan et al. (2020), who emphasized the importance of green open spaces in increasing residential property values.

Discussion

The findings of this study demonstrate that the determinants of the Gross Income Multiplier (GIM) Index for apartments within the Podomoro City Superblock area, West Jakarta, are multidimensional and influenced by a combination of physical, environmental, locational, and market-related factors. The study highlights that not all apartment attributes contribute equally to investment performance, as measured by the GIM Index.

One of the most influential variables identified is **apartment unit size**, which shows a positive and statistically significant effect on the GIM Index. Larger units tend to generate stronger rental income potential due to their greater flexibility, higher comfort level, and ability to accommodate broader tenant segments, including families, professionals, and hybrid work-from-home occupants. Economically, larger units benefit from construction

scale efficiencies, where the increase in market value does not always rise proportionally with rental income, thereby improving investment performance. The findings are consistent with hedonic pricing theory and previous empirical studies emphasizing the importance of structural property characteristics in determining rental value and investment efficiency.

One of the strongest findings of this study is that **apartment unit size** has a positive and statistically significant effect on the GIM Index. This result is consistent with the findings of Chica-Olmo et al. (2020), who concluded that larger apartment units tend to generate higher rental income due to greater residential comfort, flexibility of use, and higher tenant demand. Similarly, Nguyen et al. (2020) found that larger apartment units in Ho Chi Minh City significantly increased both rental and selling prices because they could accommodate broader tenant segments and provide better functional utility. The present study reinforces these findings by demonstrating that larger units within Podomoro City are capable of generating stronger and more stable rental income, particularly among family-oriented and high-income tenant groups. In addition, the study confirms the existence of economies of scale in apartment investment, where larger units often experience lower marginal construction costs per square meter while maintaining premium rental potential.

In contrast, the **number of bedrooms** demonstrates a positive but statistically insignificant relationship with the GIM Index. Although units with additional bedrooms theoretically offer higher occupancy potential, the superblock apartment market in Jakarta is heavily dominated by young professionals, couples, expatriates, and smaller households that prioritize

functional layouts over bedroom quantity. As a result, units with more bedrooms do not necessarily produce proportionally higher rental returns. The study indicates that market segmentation and tenant preferences create a non-linear relationship between bedroom quantity and investment performance.

The variable **number of bedrooms** shows a positive but statistically insignificant relationship with the GIM Index. This result partially aligns with Li et al. (2019), who found that additional bedrooms could increase apartment prices, although the effect was highly dependent on market segmentation and unit configuration. Chica-Olmo et al. (2020) also reported that bedroom quantity positively affected rental prices but noted that indirect spatial effects weakened the significance of the relationship. Conversely, studies by Nguyen et al. (2020), Andoyo (2015), and Osagie et al. (2025) concluded that the number of bedrooms significantly increased apartment value and rental rates. The difference in findings may be explained by the demographic profile of Podomoro City residents, where demand is dominated by young professionals, expatriates, and small households that prioritize efficient layouts rather than larger bedroom counts. This indicates that bedroom quantity alone is insufficient to determine investment performance within integrated superblock developments.

The variable **floor level** exhibits a negative but statistically insignificant effect on the GIM Index. While upper-floor apartments are commonly associated with prestige, better views, and reduced noise exposure, tenants within integrated superblock environments tend to prefer practical accessibility and efficient mobility. Excessively high floors may also

generate operational disadvantages such as longer elevator waiting times, greater dependency on vertical transportation, and higher energy consumption. Consequently, floor level functions more as a supplementary preference rather than a primary determinant of rental income and investment efficiency.

Regarding **floor level**, this study finds a negative but statistically insignificant effect on the GIM Index. This finding contrasts with Westerhuis (2019), who observed that higher floors in Rotterdam apartments significantly increased property prices due to prestige and superior views. Wen et al. (2020) similarly reported that higher floors positively affected apartment values in Hangzhou because they reduced exposure to traffic noise and pollution. However, the present findings are more consistent with Hwang and Ma (2023), who identified price discounts for upper-floor units due to higher operational costs, greater dependence on elevators, and thermal discomfort. Chandra (2018) also found that floor level did not significantly affect apartment prices in Bandung because urban density reduced the visual advantages of higher floors. In the context of Podomoro City, integrated facilities and relatively uniform environmental quality reduce the premium typically associated with upper-floor units.

Similarly, **view or scenery** shows a positive yet statistically insignificant influence on the GIM Index. Apartments facing swimming pools, sky gardens, or open urban landscapes generally command greater market appreciation due to improved visual comfort and environmental quality. However, within the Podomoro City Superblock area, most towers already benefit from relatively attractive surroundings and integrated lifestyle facilities, reducing the differentiation effect of views among

units. Therefore, aesthetic value contributes mainly as an additional amenity rather than a decisive factor affecting investment returns.

The study further demonstrates that **view or scenery** has a positive but statistically insignificant effect on the GIM Index. This finding differs from Nguyen et al. (2020), who found that apartments with views of rivers, lakes, parks, or swimming pools achieved significantly higher transaction values. H. Park et al. (2024) also reported that apartments with wider green landscapes and open views commanded substantial pricing premiums. Likewise, Ling (2022) found that sea-view apartments in Corsica, France, significantly increased apartment values. However, the present findings are closer to Chandra (2018), who concluded that apartment views in Bandung did not significantly influence prices because most urban views were obstructed by dense development. In Podomoro City, the relatively uniform quality of surrounding facilities and urban integration diminishes the differentiation effect of views, causing visual aesthetics to function primarily as supplementary amenities rather than major investment determinants.

The study also finds that **compass orientation** has a positive but insignificant impact on the GIM Index. Although certain orientations may theoretically improve natural lighting, ventilation, and energy efficiency, the influence becomes less relevant in modern high-rise developments equipped with advanced building systems such as air conditioning, façade insulation, and optimized architectural layouts. Consequently, orientation preference does not significantly alter rental performance or market valuation within premium superblock apartments.

The variable **compass orientation** also shows a positive but insignificant

influence on the GIM Index. This finding partially contrasts with Li et al. (2019), who found that south-facing apartments in Shanghai significantly increased apartment values due to sunlight exposure and feng shui considerations. Khan et al. (2024) and Yarramsetty et al. (2020) similarly emphasized the importance of building orientation for long-term energy efficiency. However, the present study is more consistent with Liu et al. (2024), who concluded that orientation had little influence on apartment prices near green corridors in Chengdu. In the Podomoro City context, modern construction technologies such as air conditioning systems, façade insulation, and optimized architectural design reduce occupant sensitivity toward solar orientation, thereby weakening its economic influence on apartment investment performance.

A contrasting result is observed for the **furnished condition**, which demonstrates a negative and statistically significant relationship with the GIM Index. Fully furnished apartments are highly attractive to tenants due to convenience, immediate occupancy readiness, and reduced relocation costs, allowing owners to charge higher rental rates. However, from an investment perspective, furniture is considered a depreciating asset with limited long-term value appreciation and strong dependence on personal taste preferences. As a result, increases in rental income tend to exceed increases in market value, leading to lower GIM ratios for furnished units. The findings indicate that furnishing strategies in Podomoro City are primarily designed to optimize rental yield rather than enhance long-term capital value.

An important finding of this study is that **furnished condition** negatively and significantly affects the GIM Index. This result contrasts with many previous

studies that reported positive effects of furnishing on apartment value and rental performance. Chica-Olmo et al. (2020), Vanessa et al. (2023), Nilawati (2020), and Chandra (2018) all found that furnished apartments significantly increased rental prices due to higher convenience, aesthetic appeal, and market attractiveness. Limantoro and Anastasia (2025) also emphasized that fully furnished apartments support the “live-work-play” concept increasingly preferred by digital nomads and expatriates. However, the findings of this study align with Thaler and Koch (2021; 2023), who argued that furniture primarily affects visual perception rather than long-term property value because furniture depreciates rapidly and depends heavily on personal preferences. In Podomoro City, furnished apartments generate stronger rental income but do not proportionally increase market value, leading to lower GIM ratios.

Among all variables examined, **sky garden and green open space facilities** emerge as the most dominant and significant determinants of the GIM Index. Apartments equipped with sky gardens demonstrate substantially higher investment performance compared to units lacking green amenities. In densely populated urban superblock environments, green open spaces provide critical environmental, recreational, and psychological benefits that improve residential quality and attract higher-income tenant segments. Moreover, the presence of sky gardens strengthens occupancy stability, enhances project prestige, and supports long-term capital appreciation. The findings confirm that modern urban residents increasingly value sustainability, wellness, and environmental quality, making green facilities a strategic factor in apartment investment attractiveness.

Among all variables examined, **sky garden and green open space facilities** emerge as the most dominant and statistically significant determinants of the GIM Index. This finding strongly supports the studies of Liu et al. (2024) and Yuan et al. (2020), who found that green spaces positively increased surrounding property values through improved environmental quality, urban cooling, and lifestyle enhancement. The findings also align with Saptoto (2002), who concluded that apartments equipped with sky gardens generated substantially higher rental income and improved investment efficiency. In contrast, Riyanto and Nurdianto (2021) found that proximity to green open spaces did not significantly affect property prices due to limited public utilization and low environmental awareness. The present study confirms that within high-density superblock developments such as Podomoro City, green open spaces provide substantial economic and lifestyle value. Sky gardens not only improve residential comfort and environmental sustainability but also enhance occupancy stability and long-term investment attractiveness.

Overall, the study concludes that all independent variables collectively exert a statistically significant influence on the Gross Income Multiplier (GIM) Index. The regression model produced an Adjusted R-Square value of 0.398, indicating that approximately 39.8% of the variation in apartment GIM values can be explained by distance to shopping malls, unit size, number of bedrooms, floor level, view orientation, compass orientation, furnished condition, and sky garden availability. The significant F-test result further confirms that apartment investment performance within the Podomoro City Superblock area is shaped by the simultaneous interaction of locational, structural,

environmental, and lifestyle-related characteristics.

The findings of this study reveal that the determinants of the Gross Income Multiplier (GIM) Index in apartments located within the Podomoro City Superblock area, West Jakarta, are influenced by a combination of structural, environmental, and market-driven factors. Several results are consistent with previous international studies, while others demonstrate contrasting patterns that reflect the unique characteristics of integrated superblock developments in Jakarta.

Overall, the study confirms that all independent variables collectively have a statistically significant effect on the Gross Income Multiplier (GIM) Index, with an Adjusted R-Square value of 0.398. This result demonstrates that apartment investment performance within integrated superblock developments is determined not by a single dominant factor, but by the interaction of structural characteristics, environmental quality, lifestyle amenities, and tenant market segmentation. Compared with previous studies conducted in conventional apartment markets, the findings highlight that superblock developments create a more complex investment ecosystem in which accessibility, sustainability, and integrated facilities increasingly outweigh traditional valuation factors such as floor level and orientation.

CONCLUSION AND SUGGESTION

Conclusion

This study examined the factors affecting the Gross Income Multiplier (GIM) index of apartments in the Podomoro City Superblock Area, West Jakarta. Based on the results of multiple linear regression analysis, several conclusions can be drawn:

1. **Distance to Shopping Mall**

Distance to shopping malls has a positive but statistically insignificant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock area, West Jakarta. This finding suggests that within an integrated superblock environment, residents generally enjoy relatively equal access to retail and lifestyle facilities, causing internal distance differences to have limited influence on rental income and investment performance. Moreover, varying tenant segments—such as office workers, students, families, and business professionals—may assign different levels of importance to mall proximity, thereby weakening its overall effect on the GIM Index.

2. **Apartment Unit Size**

Apartment unit size has a positive and significant effect on the Gross Income Multiplier (GIM) Index. Larger apartment units tend to provide greater investment efficiency because construction costs per square meter generally decrease as unit size increases, while rental income potential rises proportionally. In addition, larger units are more adaptable to diverse tenant profiles, including families, co-living arrangements, and work-from-home professionals, making them more resilient to changing market preferences and capable of generating more stable income streams.

3. **Number of Bedrooms**

The number of bedrooms has a positive but statistically insignificant effect on the GIM Index. In the Podomoro City Superblock area, demand is primarily driven by young professionals and young couples who prefer efficient one-bedroom (1BR) or two-bedroom (2BR) layouts rather

than larger units with additional rooms. Consequently, apartments with more bedrooms do not necessarily generate higher GIM values when unit size and quality remain comparable. Different tenant segments possess varying willingness to pay, resulting in a non-linear relationship between bedroom quantity and investment performance.

4. **Floor Level**

Floor level demonstrates a positive but statistically insignificant relationship with the GIM Index. Although higher floors are often associated with better views and exclusivity, most apartment towers within Podomoro City already offer attractive city views and excellent facility access. As a result, differences in tenant preferences between middle, lower, and upper floors become relatively minor, leading to a weak statistical relationship between floor level and apartment rental performance.

5. **View/Scenery**

View or scenery has a positive but statistically insignificant effect on the GIM Index. In Podomoro City, the strategic integration of shopping malls, offices, and lifestyle facilities reduces the importance of scenic views as a primary determinant of rental and investment decisions. Tenants and investors tend to prioritize accessibility, occupancy potential, tenant profile compatibility, and facility completeness, while view quality serves mainly as a supplementary feature that may enhance marketability rather than significantly increase rental returns.

6. **Compass Orientation**

Compass orientation has a positive but statistically insignificant effect on the GIM Index. In modern apartment developments such as Podomoro

City, the widespread use of air conditioning systems, curtains, and advanced façade materials reduces occupant sensitivity to direct sunlight exposure and building orientation. Consequently, the additional utility provided by a “preferred” orientation is insufficient to create substantial rental price differences. Investors and tenants in premium superblock environments generally prioritize factors such as unit size, rental affordability, facilities, and interior quality over compass orientation.

7. **Furnished Condition**

Furnished condition has a negative and significant effect on the GIM Index. This finding reflects differing preferences between tenants and investors within the Podomoro City Superblock area. Short- and medium-term tenants highly value furnished apartments due to their convenience, reduced relocation costs, and practicality, making them willing to pay higher rental prices. However, investors and buyers often perceive furniture as a depreciating consumptive asset that may not align with future occupant preferences. Consequently, increases in selling prices often fail to fully compensate for furnishing costs and expected investment margins.

8. **Sky Garden**

Sky garden availability has a positive, significant, and dominant effect on the GIM Index. The presence of green open spaces enhances the prestige, sustainability, and long-term attractiveness of superblock developments such as Podomoro City. Buyers and long-term investors are willing to pay premium prices for apartments with sky garden facilities because they believe such amenities preserve and increase property value over time. However, rental growth

does not always increase proportionally to selling prices, indicating that sky gardens contribute more strongly to capital appreciation than to rental yield. Furthermore, residents value sky gardens for their health, recreational, social, and family-oriented benefits.

9. **Simultaneous Effect of Independent Variables**

Collectively, all independent variables—including distance to shopping malls, apartment unit size, number of bedrooms, floor level, view/scenery, compass orientation, furnished condition, and sky garden availability—simultaneously have a significant effect on the Gross Income Multiplier (GIM) Index of apartments in the Podomoro City Superblock area, West Jakarta. This finding confirms that apartment investment performance within integrated superblock developments is multidimensional and influenced by a combination of locational, physical, environmental, and lifestyle-related factors.

This study confirms that apartment investment performance in integrated urban developments is not solely determined by location proximity but also by environmental quality, apartment characteristics, and facility attributes.

Suggestion

Based on the findings of this study, several recommendations are proposed:

1. Property developers should prioritize environmental facilities such as sky gardens and green open spaces to increase apartment investment attractiveness.
2. Investors should consider apartment unit size and long-term operational efficiency when evaluating apartment investments.

3. Apartment managers should improve occupancy strategies by focusing on environmental comfort and integrated residential experiences.
4. Future studies are encouraged to include additional variables such as occupancy rates, building age, service quality, maintenance costs, and macroeconomic factors.
5. Further research may also compare GIM determinants across different superblock developments or cities in Indonesia.

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