

ASSESSMENT OF FACTORS INFLUENCING VARIATION IN RENTAL VALUE OF COMMERCIAL PROPERTIES

¹Indumathi V, ²Dr V K Arthi

¹Student, ²Assistant Professor
Department Of Management Studies
Sri Ramakrishna Engineering College
Coimbatore, India.

Abstract- This Study aims to assess the factors that influencing variation in Rental Values of Commercial Properties. The commercial property rental market is complex, and the rental value of commercial properties varies greatly depending on different factors. The objectives of this Study is to identify the factors that affecting the rental values of commercial properties, to figure out the extent to which these factors causes variations in rental Values, to determine whether these factors affect the decisions of tenant/owner. The scope is to know the performance of Retail Properties and to know the factors that need to be considered in Rental properties. In this Study, we have conducted secondary data analysis and Factors taken for study are: Dependent variable- Rent and Independent Variable- Size of the Property, Size of the Building, Age, Frontage, Average unit Size. The tools used to analysis the data are: Correlation and Regression analysis. The study reveals that there is a relationship between the dependent variable(rent) of all the three areas of the properties. that are taken for study. The regression analysis shows that Size of the Property, Age is having a negative influence in all areas of Properties and Size of the Building, Frontage is having a positive influence on all three areas of properties .The Study recommends to consider this factor for tenant and owner to perform informed decisions regarding rental properties.

Key words- Rental Properties, Rental Value.

I. INTRODUCTION

Shelter is a basic necessity in life. An individual can satisfy this need by either occupying his own (owner's occupier) property or renting another person's property. In our traditional society, the need for shelter is mainly met through the first alternative that is owner occupation . With the emergency of urban centers', the situation has changed. Many people are no longer about to own property because of the difficulty in the acquisition of land and the high cost of building construction. Therefore, they are left with the alternative of renting other people's properties in order to satisfy their need for shelter. Consequently two classes of urban resident have emerged, the landlord and the tenant under this arrangement the tenant pays to the landlord a certain amount of money in consideration for his use of the landlord's house. This amount is popularly known as rent.

II. DETERMINANTS OF RENTAL VALUE

Factors such as location, rentable usable area, type of contract/lease, market prices and trends, and property fit-outs and amenities influence rental rates.

Rent Calculation:

A simple formula for commercial rent calculation used by everyone is the following:

Rent = (Usable sq ft x usable sq ft rate each month) + (Common area x the rates per month for this type of area).

Suppose the usable area stands at 100 sq ft with a common area of 50 sq ft. If the rent is Rs 150 per sq ft for the usable area and Rs 50 per sq ft for the common area every month. Therefore, the commercial rent for each month will be the following:

$(100 \times 150) + (50 \times 50) = \text{Rs } 17,500$ per month.

Location: Location is what hugely influences rental rates and capital appreciation. Areas with vacancies lower than 5 percent will naturally have higher rentals with established tenants.

Building Amenities: Buildings and properties with superior amenities, fit-outs, LEED and other ratings/certifications, better elevators/lobbies, higher ceiling heights, great views, and better construction quality will naturally have higher rentals than similar properties in the same neighborhood.

Market Conditions: Demand and supply equations also influence rental rates in varying micro markets. Every area has its own completed and leased stock in tandem with upcoming supply. Annual demand is the other cog in the wheel. If rental supply outstrips past demand, then rentals come down. The reverse happens if demand far exceeds supply.

Market trends, infrastructural developments, accessibility of public transportation and social amenities, and even tenant quality (blue-chip corporations, MNCs, banks, leading corporates also influence rentals and property values in the long run.

Tenant Improvements: Office Fit-outs and other commercial spaces are often available in bare shell formats, where tenants take care of flooring, interior workspaces, cubicles, electrical, conference rooms, air conditioning, and more. While some tenants prefer doing their fit-outs, others request them from developers or owners, for which they pay an extra rental value. These come at Rs

800-1,000 for each sq ft. Developers or owners may charge another Rs 25-30 per sq ft each month for covering these costs. These Cost so determines the rent to be quoted and the Kind of lease structure also determines rentals.

III. METHODOLOGY

- Research Design-Analytical Research
- This Research design is used to analyze the factors that cause variation in rental values of commercial properties
- The data Collected were Secondary data
- Secondary data-The information about the properties has been taken from County website(HCAD) and rental values from leasing websites.
- The tool used for Analysis are:
- Correlation Analysis
- Regression Analysis
- Factors taken for study are:
- Dependent variable- Rent
- Independent Variable- Size of the Property, Size of the Building, Age, Frontage, Average unit Size.

Limitations

- The Study is limited only to the Houston City of Texas.
- The Study is limited only to the Retail properties.

IV. DATA ANALYSIS AND INTERPRETATION

Correlation Analysis:

	<i>Rent of properties in Beltway 8</i>	<i>Rent of properties in Freeway of Midtown</i>	<i>Rent of properties in Midtownship</i>
<i>Rent of properties in Beltway 8</i>	1		
<i>Rent of properties in Freeway of Midtown</i>	0.303459975	1	
<i>Rent of properties in Midtownship</i>	0.278293895	0.401241805	1

Interpretation:

The above table shows that there is a Correlation between the Dependent Variable(Rent) of all three areas of Properties. As the Value is Positive and it is less than 0.5, it indicates that there is not a Strong Correlation but there is a relationship between the Variables. Since there is a Relationship between them we can do Regression analysis to found the Independent Variables Variation on Dependent Variable(Rent) on all three areas of properties.

Regression Analysis:

Properties in Beltway 8:

<i>Regression Statistics</i>					
Multiple R	0.71525242				
R Square	0.511586025				
Adjusted R Square	0.337152462				
Standard Error	6.278225974				
Observations	20				
ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	578.0062206	115.6012	2.932842	0.051320766
Residual	14	551.8256994	39.41612		
Total	19	1129.83192			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	27.5835889	7.617241982	3.621204	0.002779	
Size of the Property	-6.688383863	0.000040196	-0.16639	0.870227	

Size of the Building	0.00003623	0.000151947	0.238444	0.814991	
Age	-0.482934335	0.12812945	-3.76911	0.002074	
Frontage	0.000403382	0.022447988	0.01797	0.985917	
Average Unit Size	-0.00002789	0.000118929	-0.23451	0.817982	

Regression Model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

$$Y = 27.58 - 6.688383863 X_1 + 0.000003623 X_2 - 0.482934335 X_3 + 0.000403382 X_4 - 0.00002789 X_5$$

Interpretation:

In the consideration of the entire variables fitted in the model, R^2 (0.511) it is shown that about 51.1% of the variation in rental value are mutually accounted for by the variables considered in this analysis.

The Standard Coefficient(β) shows the influence of independent Variables on Rent values. In this Analysis, Size of the Property (-6.688383863), Age(-0.482934335), Average Unit Size (-0.00002789) have negative influence on Rent Whereas, Size of the Building (0.000003623), Frontage (0.000403382) have Positive Influence on Rent Value.

Properties in Freeway of Midtown

<i>Regression Statistics</i>					
Multiple R	0.674843786				
R Square	0.455414136				
Adjusted R Square	0.260919184				
Standard Error	9.109929318				
Observations	20				
ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	971.623909	194.3248	2.341522	0.096263
Residual	14	1161.87137	82.99081		
Total	19	2133.49528			
Coefficients					
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	18.2995604	7.43211156	2.462229	0.027391	
Size of the Property	-0.000051833	0.0000373	-1.38679	0.187192	
Size of the Building	0.000107579	0.00015394	0.698834	0.496102	
Age	-0.247617728	0.13727493	-1.80381	0.092816	
Frontage	0.044684084	0.02259253	1.977826	0.067976	
Average Unit Size	0.00006928	0.00009024	0.767825	0.455347	

Regression Model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

$$Y = 18.29 - 0.000051833 X_1 + 0.000107579 X_2 - 0.247617728 X_3 + 0.044684084 X_4 + 0.00006928 X_5$$

Interpretation:

In the consideration of the entire variables fitted in the model, R^2 (0.455) it is shown that about 45.5% of the variation in rental value are mutually accounted for by the variables considered in this analysis.

The Standard Coefficient(β) shows the influence of independent Variables on Rent values. In this Analysis, Size of the Property (-0.000051833), Age (-0.247617728) have negative influence on Rent Whereas, Size of the Building (0.000107579), Frontage (0.044684084), Average Unit Size (0.00006928) have Positive Influence on Rent Value.

Properties in Midtownship City

<i>Regression Statistics</i>					
Multiple R	0.517182758				
R Square	0.267478005				
Adjusted R	0.005863007				

Square					
Standard Error	4.64145523				
Observations	20				
ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	110.1295269	22.02591	1.022411	0.441425014
Residual	14	301.6034931	21.54311		
Total	19	411.73302			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	
Intercept	16.65827346	6.163325448	2.702806	0.017162	
Size of the Property	-0.000022499	0.000037	-0.59285	0.562735	
Size of the Building	0.000049283	0.000146998	0.335266	0.742396	
Age	-0.090369804	0.088177183	-1.02487	0.32281	
Frontage	0.01942401	0.014276419	1.360566	0.195154	
Average Unit Size	-0.000285246	0.001012791	-0.28164	0.782337	

Regression Model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

$$Y = 16.65 - 0.000022499 X_1 + 0.000049283 X_2 - 0.090369804 X_3 + 0.01942401 X_4 - 0.000285246 X_5$$

Interpretation:

In the consideration of the entire variables fitted in the model, R^2 (0.267) it is shown that about 26.7 % of the variation in rental value are mutually accounted for by the variables considered in this analysis.

The Standard Coefficient (β) shows the influence of independent Variables on Rent values. In this Analysis, Size of the Property (-0.000022499), Age (-0.090369804), Average Unit Size (-0.000285246) have negative influence on Rent Whereas, Size of the Building (0.000049283), Frontage (0.01942401), have Positive Influence on Rent Value.

V. FINDINGS

- Size of the Property is having a negative influence in all areas of Properties, indicating that for every increase in Size of the Property Variable, the rental Value will have a negative impact on all three areas of Properties.
- Size of the Building is having a positive influence on all three areas of properties.
- Age is having a negative influence showing every increase in this factor will have a negative impact on Rental values of all areas.
- Frontage is having a Positive influence showing every increase in this factor will have a positive impact on Rent in all areas under Study.
- Average Unit Size is a having positive influence in Freeway of Midtown whereas a negative influence in other two areas.

RECOMMENDATION

- Recommendations for each of the three areas:
- Beltway 8 Properties: As the independent variables account for a relatively high proportion of the variation in rental value in this area, it may be useful to focus on these variables when making decisions related to property rental. Specifically, it may be beneficial to consider properties with smaller sizes, newer ages, and smaller average unit sizes.
- Midtown Properties: The analysis shows that the size of the property and age have a negative influence on rental value in this area, while the average unit size has a positive influence. Therefore, property owners in this area may benefit from focusing on properties with larger average unit sizes, and avoiding properties with large sizes and old ages.
- Midtownship Line Properties: The analysis shows that the size of the Property, age, and average unit size have a negative influence on rental value in this area. Therefore, property owners in this area may benefit from focusing on properties with smaller land sizes, newer ages, and smaller average unit sizes. Additionally, increasing the frontage of properties may be beneficial, as it has a positive influence on rental value in all three areas.

VI. CONCLUSION

In Conclusion, the Study, we conducted on Retail properties in Beltway 8, Freeway of Midtown and Midtownship line in Houston City by considering the independent Variables taken as factors that might influence the Rental Value are Size of the Property, Size of the Building, Age, Frontage and Average Unit Size shows that it has neither a very positive nor very negative relationship on

rental values, whereas it has some impact that both the landlord and tenant must consider. By Correlation Analysis, We found that there is a positive relationship between the Rent of all three areas of properties. We analyzed the Independent factors with respective Rental Value by using Multiple Regression Analysis to find out the degree of importance or influence of these of Factors on Rental Values. By the Analysis we can Conclude that Factors taken for study showing jointly accountable for more Variations (51.1%) in Properties in Beltway 8 than the Factors showing less Variation in Other two Areas of Properties. The factors that have positive influence of landlord will have negative influence for tenant and vice versa. This Study finds helpful for both the landlord and tenant in the case of determining the rental values.

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