
Real Estate Consulting Report

Appraisal – Itapema Real Estate Market



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According to your request, an evaluation work was carried out for the real estate market in the city of Itapema - SC.

The objective of this work is to analyze and create a support tool, helping in the decision making of which are the best configurations of real estate and regions to invest.

In order to carry out this report, the data provided and external information were used in order to answer the following questions:

1. What is the best property profile to invest in the city?
2. Which is the best location in the city in terms of revenue?
3. What are the characteristics and reasons for the best revenues in the city?
4. We would like to build a building of 50 apartments in the city, where should we build it and how should the apartments be designed in order to be a great investment?
5. How much will be the return on investment of this building in the years 2024, 2025 and 2026?

Data analyzes were performed in the Python programming language, due to the author's mastery of the analysis and greater efficiency in data processing.

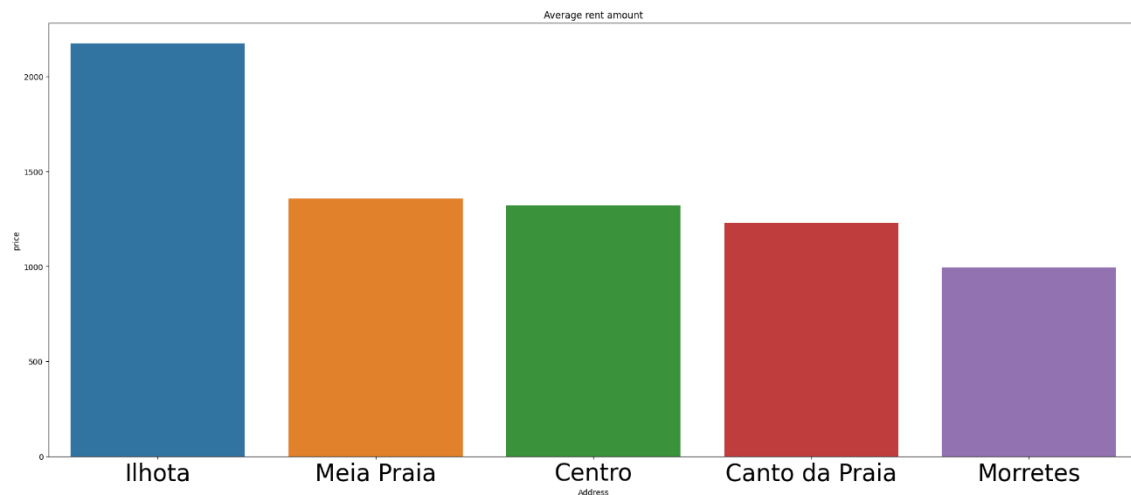
The data came extremely raw which demanded a lot of data engineering work and consequently many hours of work. The "Price_AV_Itapema.csv" file was very large and required a strategy of evaluating unnecessary columns to reduce the amount of memory consumed, this strategy ended up being extended to the other files. As the file was very large, it was necessary to make a sample of it in order to do all the necessary processing.

Two dataframes had information about latitude and longitude, it was challenging to transform this information in the respective neighborhoods, but a function was created using a library that allowed to carry out the process. But after building the function came a new challenge which was the time the function took to perform the transformation, an improvement to the code would be to develop a function that does this step more quickly, in case greater speed is needed, or to run this code in some cloud tool.

It would be interesting to carry out this project based on data covering a whole year, in order to have a better idea of revenue seasonality. I didn't find it relevant to train any machine learning model, but with a database covering a whole year or a longer period of time, it would be interesting to train a regression model that would allow for a more assertive predictability of future revenue.

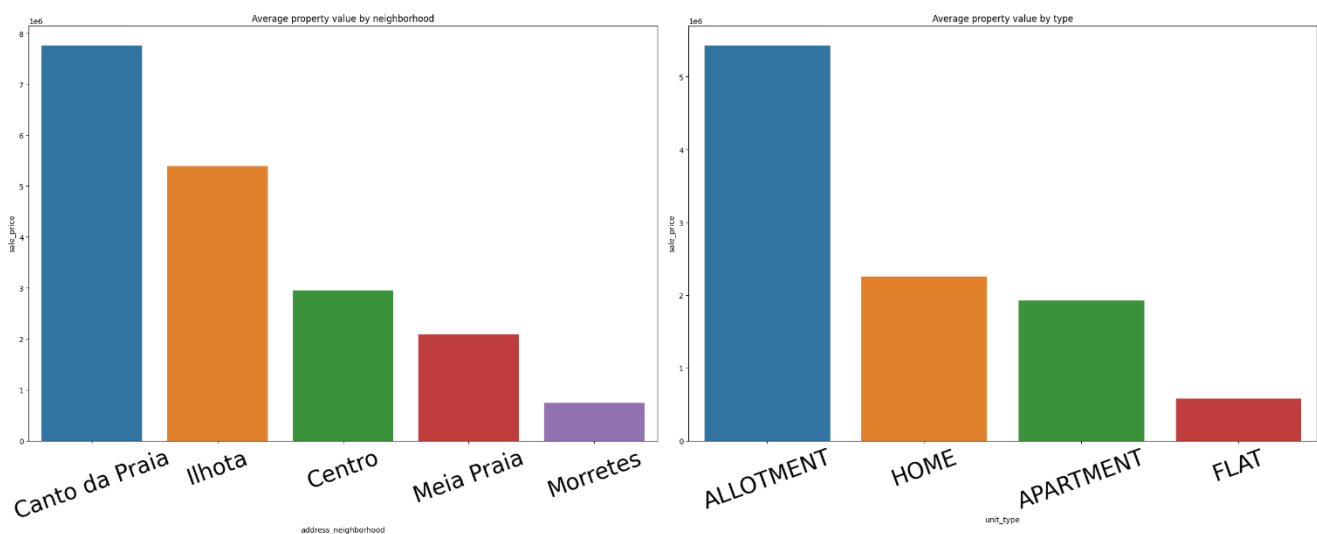
What is the best property profile to invest in the city?

To answer this question, the entire database was analyzed in order to better explain where to invest in the real estate market in Itapema - SC, with the purpose of building to rent or sell. The city's economy, as it is on the coast, is strongly based on tourism, so we focused on neighborhoods that have a waterfront because they have greater potential for growth in both the area and the rental value. The investigation began with which neighborhoods have the highest rental value.



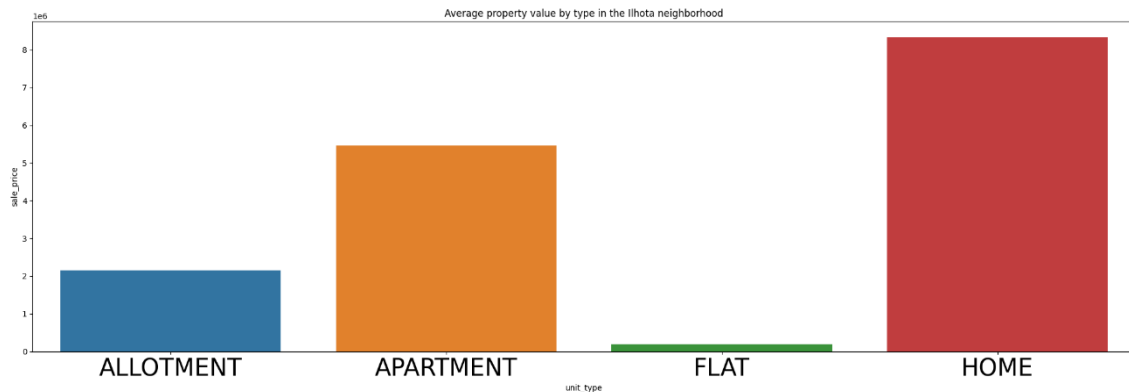
Graph 1 – Rent by neighborhood

Graph 1 shows the average values of rents, by neighborhood. We can observe that the Ilhota neighborhood stands out among the other neighborhoods. The sale value of the properties was also analyzed, by neighborhood and type of housing.



Graph 2 – Value of properties by neighborhood and type of housing

Graph 2 presents the average sales values of properties by neighborhood and by type of housing for the entire city. In Graph 3 we can see a different behavior for the Ilhota neighborhood, where subdivisions have significantly lower values than apartments and houses.



Graph 3 - Value of properties in the Ilhota neighborhood

Therefore, within what has been exposed so far, the best investment profile in the city of Itapema is the purchase of subdivisions to build apartments focused on rent. But if there is interest in construction focused on the sale of properties, it is also interesting to buy allotments and build apartments or homes, as can be seen in the table below, with the Ilhota neighborhood standing out again.

ADDRESS	APARTMENT	FLAT	HOME	ALLOTMENT
Morretes	772535.69	444978.67	545329.51	764443.26
Ilhota	5462670.38	188151.33	8336911.11	2144125.00
Centro	2936014.74	652800.00	4510134.62	2193087.60
Meia Praia	2084102.54	629856.14	2100030.35	10605555.56
Canto da Praia	2429772.10	NaN	14550094.96	25941590.91

Table 1 - Value of properties by neighborhood and type of housing

Therefore, based on the data presented so far, we can say that the best real estate investment profile in the city of Itapema are subdivisions focused on building apartments for rent or sale, in the Ilhota neighborhood.

Which is the best location in the city in terms of revenue?

This issue has already been addressed in the previous question to define the best real estate profile to invest in, as the possible return on the property through rent is certainly important to define which property to invest in.

Graph 1 shows that the Ilhota neighborhood, which was defined as the best neighborhood to invest in, has the best income through rent and Table 1 and Graph 3 shows that the neighborhood also has the best return when we focus on buying subdivisions with the purpose of building and selling in the future.

What are the characteristics and reasons for the best revenues in the city?

The Ilhota neighborhood is the best recipe for being a neighborhood with a very long waterfront, as can be seen in figure 1, taken from Google.

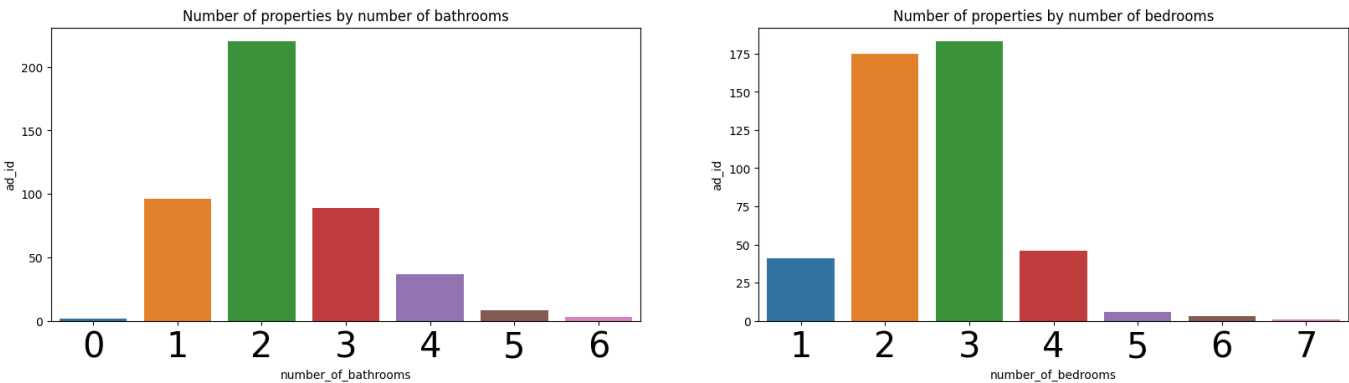


Figure 1 – Ilhota neighborhood

In addition to the proximity to the sea, the neighborhood has a gastronomic route with numerous bars and restaurants that surround the region, it has a good infrastructure, but it can still be expanded, bringing greater appreciation to the neighborhood. There is currently a strong investment in the high-end real estate market that will certainly bring a strong appreciation to the neighborhood.

We would like to build a building of 50 apartments in the city, where should we build it and how should the apartments be designed in order to be a great investment?

As previously discussed, the Ilhota neighborhood is the best place to invest through leasing or building apartments to be sold after completion. And graph 4 shows the most common configuration of apartment projects, with 3 bedrooms and 2 bathrooms, this analysis comes from the amount of properties that are offered in the Ilhota neighborhood, but it follows the trend of the city, as the graphs of the configurations of the properties for the whole municipality follow the same presentation.



Graph 4 – Configuration of real estate projects in the Ilhota neighborhood

Therefore, the apartments must be built in the Ilhota neighborhood, preferably after the acquisition of a subdivision. With the configuration of three bedrooms and two bathrooms.

How much will be the return on investment of this building in the years 2024, 2025 and 2026?

The average monthly revenue in the Ilhota neighborhood is R\$2,174.16 in the year 2022, but the database does not include the entire year of 2022 with the month of December, probably one of the most profitable in rents, was registered only up to the day 07 of the month, the record goes from July to December, excluding the summer months where we would have a very relevant revenue, impacting the average revenue. From the average monthly revenue, we can infer that revenue in 2022 was R\$26,089.92 for a property leased in the Ilhota neighborhood.

Using the General Price Index – Market (IGP-M) average of the last 14 years of 7.86%, we can readjust the billing to R\$28,140.59, in the year of 2023. Table 3 presents the annual revenue of the 50 apartments built in the Ilhota neighborhood.

year	revenue
2024	1517622.00
2025	1636907.09
2026	1765567.99

Table 2 - Sum of rent values per year in the Ilhota neighborhood

Therefore, the construction of 50 apartments will bring annual revenues of approximately R\$1,500,000.00. The value grows over the years due to inflation, but there is the possibility of real growth through the appreciation of the property and possible increase in the rent value.

Conclusion

Within the requests made and based on the analysis carried out on the available data, it is concluded that the most interesting investment in the city of Itapema - SC is the acquisition of a subdivision in the Ilhota neighborhood for the construction of a condominium with 50 apartments, as suggested. Preferably, the apartments should have three bedrooms and two bathrooms, as this is the most common layout in the neighborhood and in the city. The revenue forecast is around one and a half million reais, with the growth shown in table 2 due to the IGP-M, but because it is a neighborhood with easy access to the sea and a growing number of shops and bars, in addition to a forecast of high standard urbanization, it has a real capacity for real estate appreciation and growth in rent revenue.