

Identifying the Best District in Istanbul for Luxury Investment

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1. Introduction

Problem:

For investors planning to invest in a luxury venue in Istanbul, one of the world's largest metropolises and brand cities, the region selection is extremely important and a problem that needs to be solved before the investment.

Determining the target audience area with the socio-economic status data of Istanbul is possible with data analysis in determining the investment area to some extent.

2. Data

Using the district-based socio-economic data set from the Istanbul Metropolitan Municipality Open Data service and Foursquare location data, it is possible to visually express in which region the investors will invest in Istanbul for the A + customer segment. In total, 959 rows and 4 features (Figure -1-) in the raw dataset. There are 8 (Figure -2-) different customer segments

	ILCE_ADİ	MAHALLE_ADİ	SES	SES SKORU
0	ADALAR	BURGAZADA	B	62.5
1	ADALAR	HEYBELİADA	B	62.5
2	ADALAR	KINALIADA	C	37.5
3	ADALAR	MADEN	B	62.5
4	ADALAR	NİZAM	B+	75.0

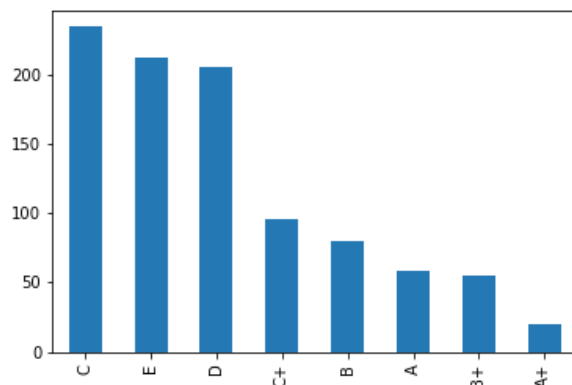


Figure -1-

Figure -2-

3. Methodology

In this project, we will focus on determining the central point for establishing, acquiring or renting a venue for the A + customer segment in Istanbul.

In the first stage, we will analysis the socio-economic data detected in 950+ regions of Istanbul and translate this region information into geographical information.

In step 2, we will filter the regions with high A + customer segment on the map.

In step 3, we will identify the densest area using K-means and determine its center.

In the 4th and last step, we will find the venues near this central point using by Foursquare Data. The address information has been transformed into geographical location data (Figure -3-). As can be seen, the A + customers segment are predominantly the European side between the 1st and 2nd bridge (Figure -4-). We achieved 5 different regions (Figure -5-)

	ILCE_ADİ	MAHALLE_ADİ	SES	SES SKORU	lat	lon
0	ADALAR	BURGAZADA	B	62.5	40.882124	29.064212
1	ADALAR	HEYBELİADA	B	62.5	40.876259	29.091027
2	ADALAR	KINALIADA	C	37.5	40.908452	29.048420
3	ADALAR	MADEN	B	62.5	40.860802	29.126741
4	ADALAR	NİZAM	B+	75.0	40.856535	29.115939

Figure -3-

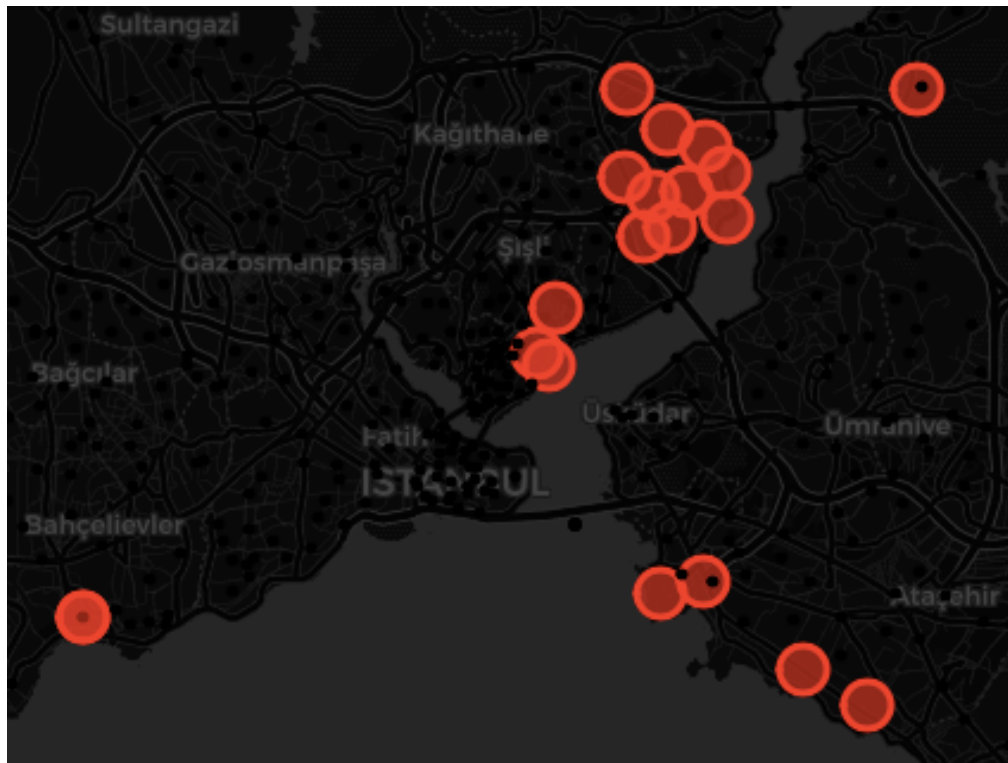


Figure -4-

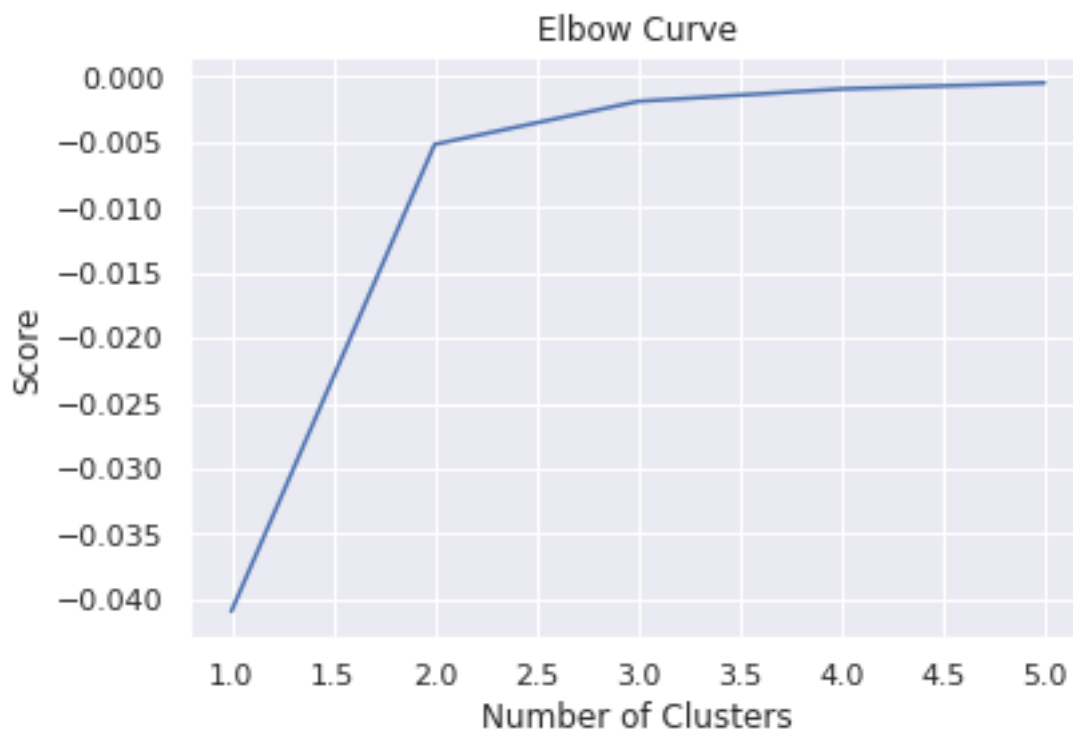


Figure -5-

4. Results and Discussion

According to the analysis, the region with the highest A + customer segment in Istanbul is on the European side. These regions, which are very close to each other, are clustered in a single district. Therefore, it will be easy for the A + mass to reach the determined center point.

After determining the region with the highest A + customer base, a central point was determined.

According to these results, the number and type of the existing venues can be examined in detail (Figure-6-), and the venue renting or acquiring investment can be decided.

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0          MM Bahçecik
1          Kile Restaurant
2          Icons and Styles
3          D'lara Chocolatier
4          Dentiorm Diş Kliniği
5          Akmerkez
6          hhb(HanHukuk)
7          dostlar sitesi 1. blok
8          Paper Moon
9          Maya Residences Etiler
Name: name, dtype: object
```

Figure -6-

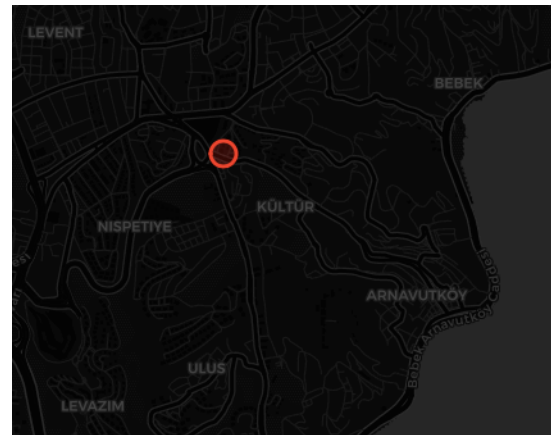


Figure -7-

5. Conclusions

With this report, it is aimed to determine the most central location for investors who want to invest, buy, or rent a luxury venue in Istanbul, where the A + customers segment are the most.

First of all, the A + customers segment was analyzed using Istanbul socio-economic data. By converting district information to location information,

the densest area was determined. The most central location was determined by creating segments with K-means.

In the last stage, the places in this central location were determined using foursquare. Investors can decide to buy or establish a new location-based on both this central point data and the location information available there.