

# Lahore Land Holdings Analysis & Predictions

Konain Niaz 2023

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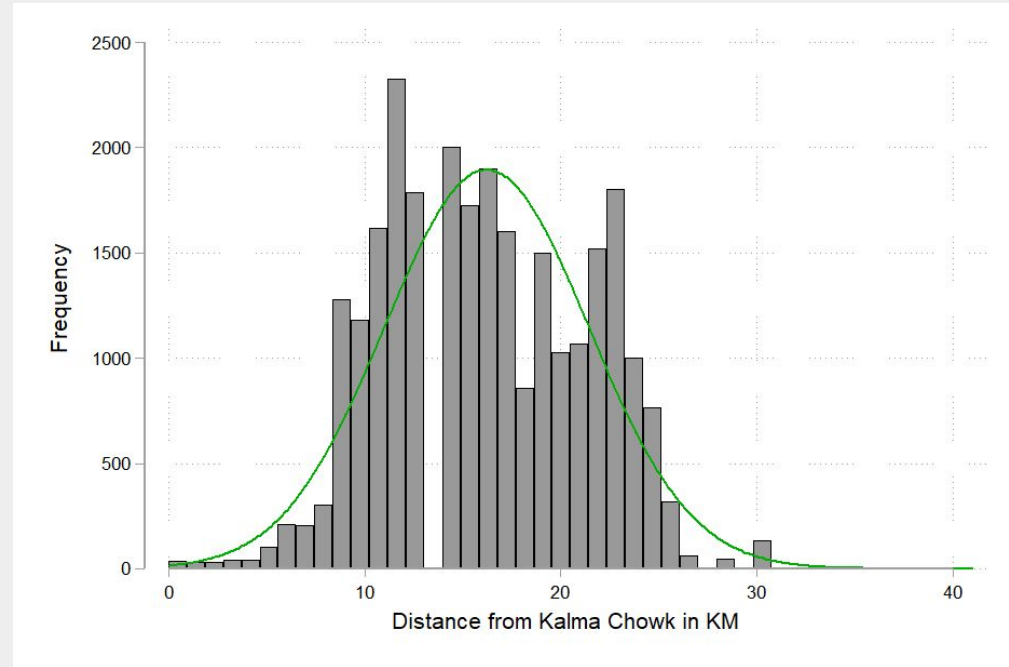
# Data Sources

## Zameen Data

- Zameen data was obtained by using the following method: data of listings of properties 'for sale' was scraped directly from zameen.com using a scraping methodology developed by the author.
- 1491 pages were scraped with a total of 26,775 listings of plots in Lahore.
- The website does not show price data over time for a listing. So the following analysis had to be done on present data only and a time lapse comparison was not possible.

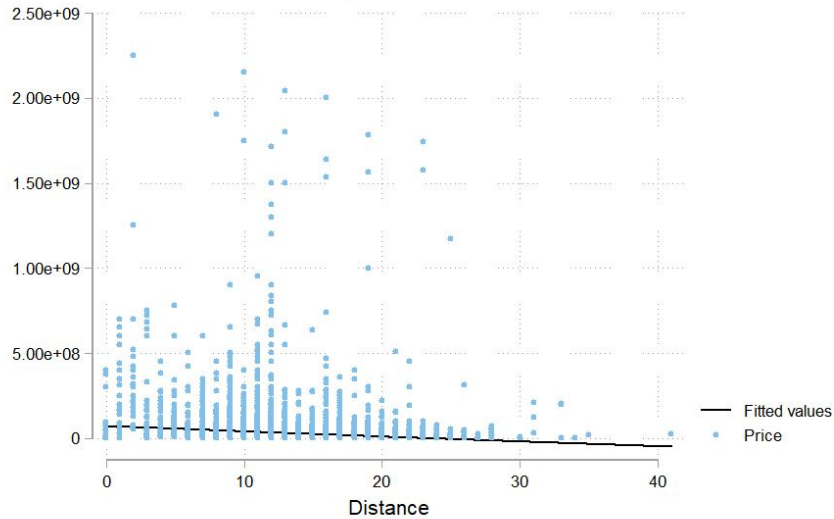
Location: Plots are distributed all over Lahore up to 41 KM from Kalma Chowk (the center of the city)

- There are 26,774 properties at an average distance of 16 km from Kalma Chowk
- Distance is an important determinant of price of plots on sale. As we will see in the following slides.
- If you are a developer then your ideal location for a project should be within a 16 km radius from Kalma Chowk.
- But this does not deter the sale of plots as far as 40 km either.

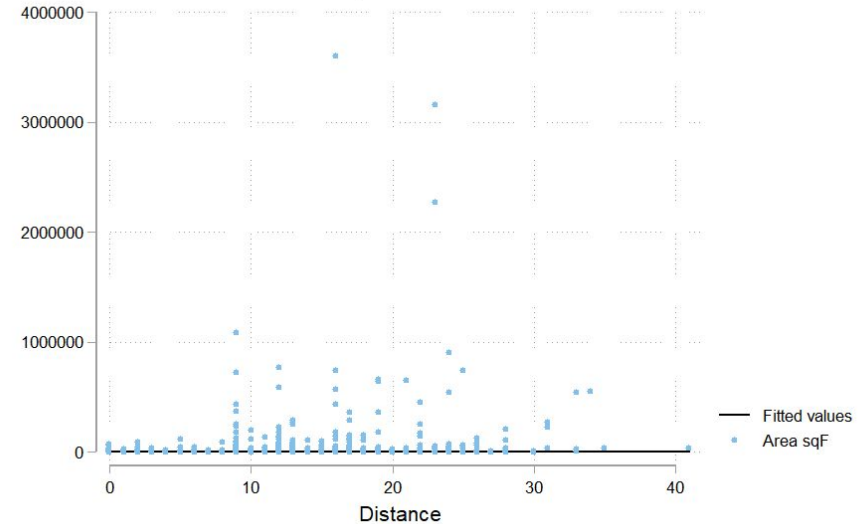


Location: The price of plots decreases with distance from kalma chowk in a slightly downward trend. Approximately the price goes down PKR 2.9 million for every kilometer change in distance. A similar trend can be seen for area, although the change in value is smaller,, approximately 105 sqft.

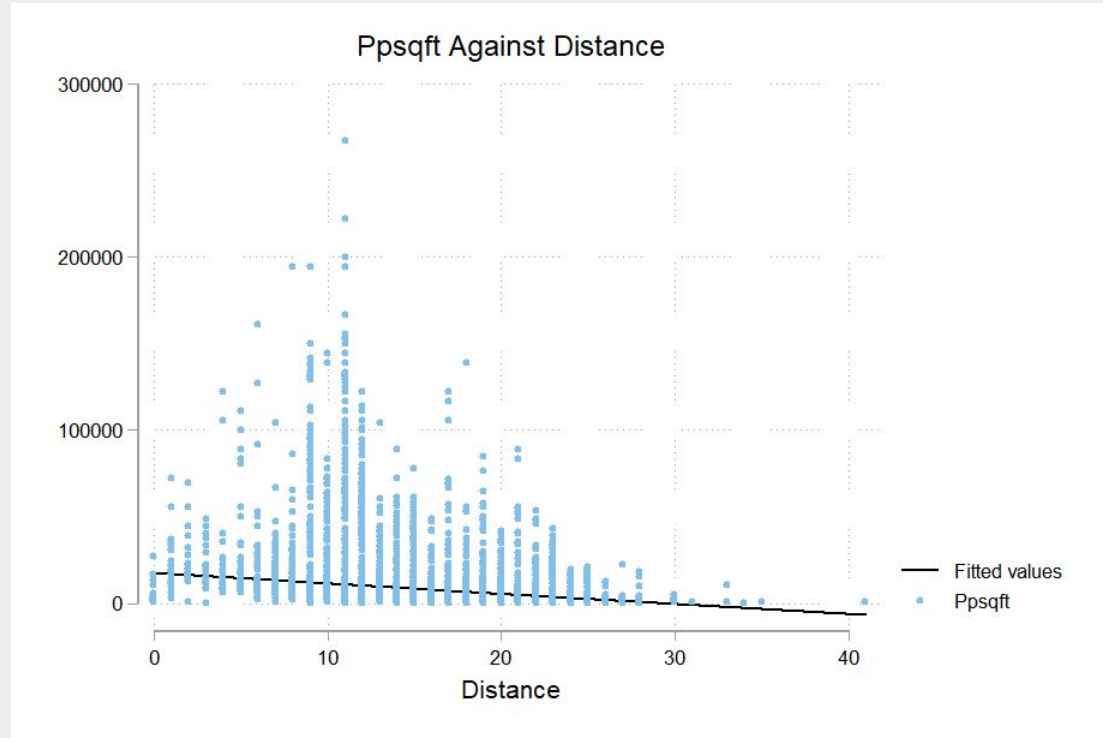
Price Against Distance



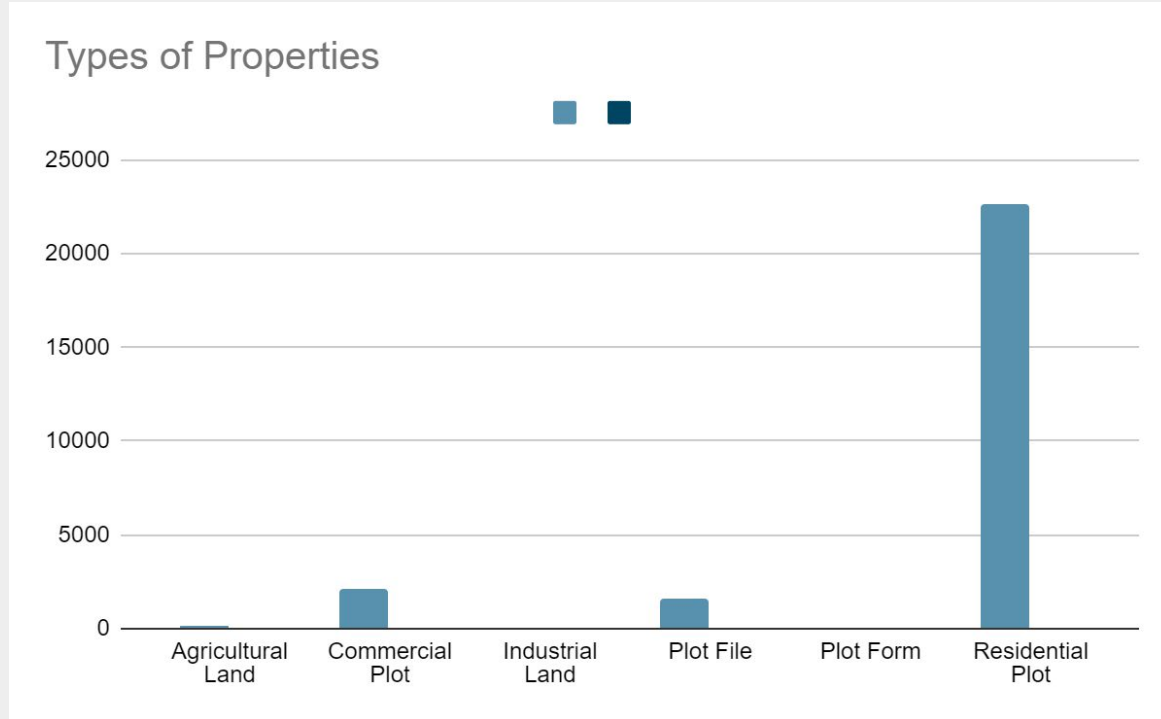
Area Against Distance



Location: Price per square foot also shows a downward trend with distance from the center of the city. On average, the price per square foot decreases by 594 PKR for every additional kilometer from Kalma Chowk.

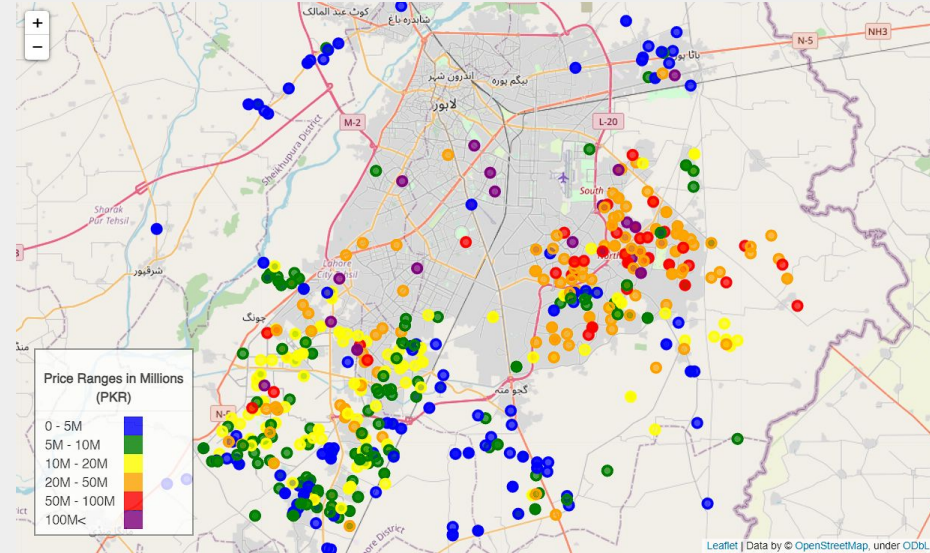
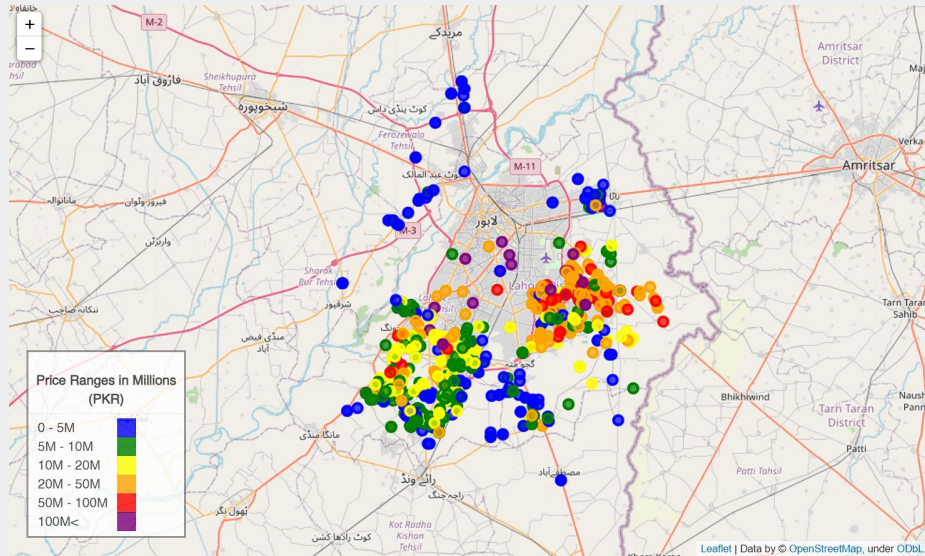


Property Characteristics: 80% of the listings are of Residential Plots. The second most common types are Commercial Plots at 8%.



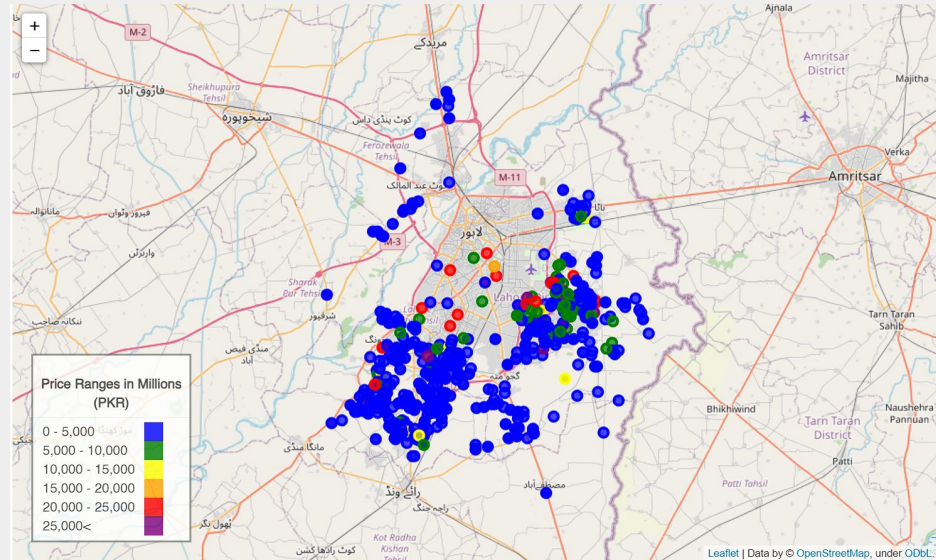
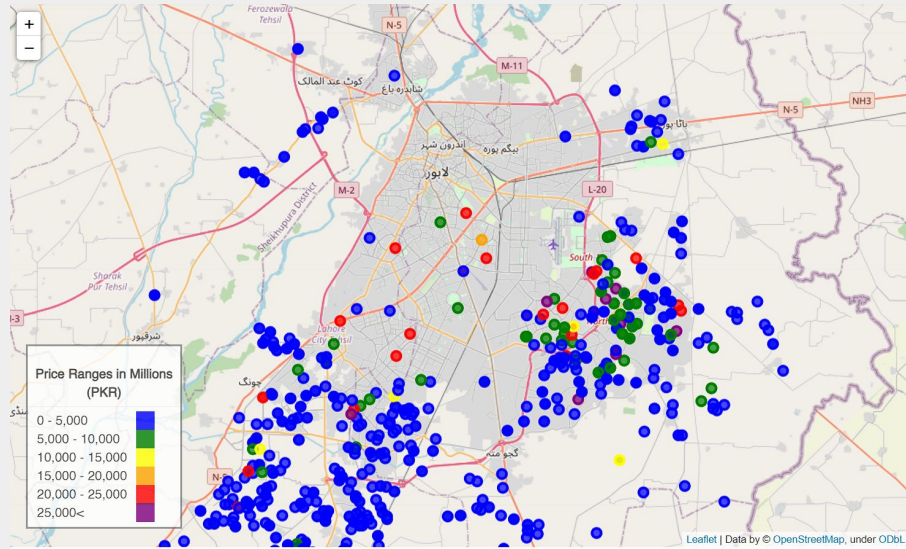
Price Determinants: Locations is clearly one of the important determinants of price. The following maps show the distribution of properties in Lahore and their total price. Prices are lower in the peripheries.

The map on the right is a zoomed in version of the same map on the left.

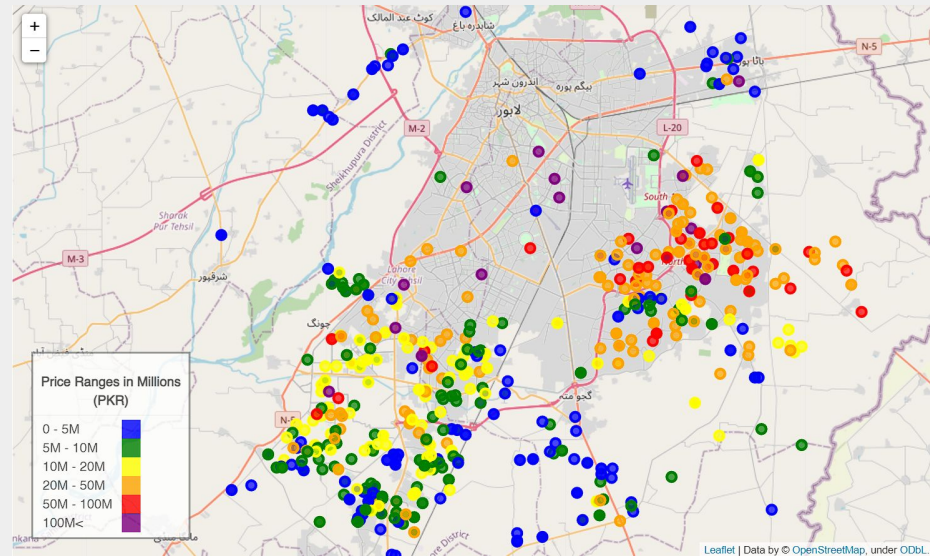
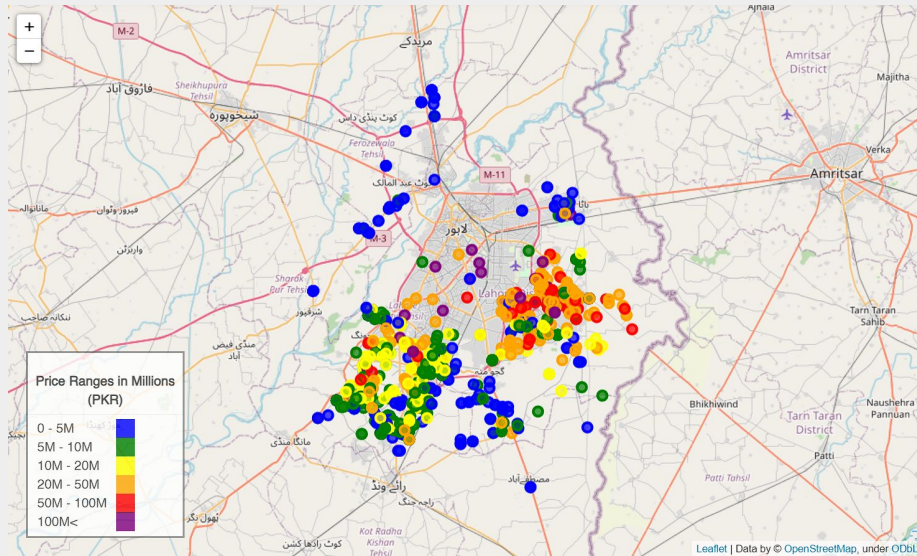




The following maps show the distribution of properties in Lahore and their Price Per Square Foot. Prices rarely go higher than 10,000 pkr/sqft outside of the ring road boundary. 55% of the plots have a price per sq ft of less than 5,500 pkr/sqft. The map on the right is a zoomed in version of the same map on the left.



The following maps show the distribution of properties in Lahore and their Predicted Prices based on the prediction model that was ran on the dataset. Prices are predicted at an accuracy of 89.7%.



Note: To use the interactive map, download the html document in the folder

From 26,539 observations, the following table shows the summary stats for the variables: Total Price, Area in Square Foot, Price per Square Foot, and Distance from Kalma Chowk in KM.

Stat	Price (pkr)	Area (sqft)	Price per sq ft	Distance (km)
Mean	25,200,000	4473.985	8011.357	16.2
Median	10,500,000	2249.998	5333.338	16
25%	5,400,000	1124.999	3377.781	12
75%	25,800,000	4499.996	8000	21