Real Estate Market Insights: An Exploratory Analysis of Zameen.com

1-Introduction:

Listings in Pakistan

This report provides pricing analysis of wide range of cities of Pakistan with their respective areas (squarfoot) ,location and their property types(commercial/Residential) with goal of their sales being listed on Zameen.com

2-Problem Statement :

The Investigation of price patterns on different types of property (commercial/Residential), Size (marla/kanal/Sqr yard), according to different cities of Pakistan.

3-Project Objective:

Aim of this project is to extract actionable insights from property listings on Zameen.com -such as pricing trends, neighborhood comparisons, and listing quality -that can help real estate investors make informed decisions.

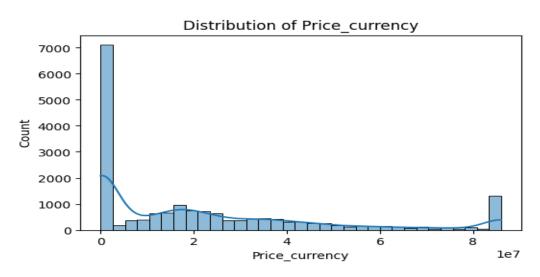
4- Dataset Overview

- The dataset provided was consisted of well-detailed total 18256 records of property for sale purpose containing Flat, House, upper portion, lower portion, rooms, Farm houses of different cities of Pakistan including
 Abbotabad, Attock, Bahawalpur, Buner, Burewala, Chakwal, Chilas, Chiniot, Daska, Dera Ghazi Khan, Dera Ismail khan, Faisalabad, Fateh jang, Galyat, Gharo, Gujar Khan, Gujranwala Gujrat, Gawadar, Hafizabad, Haripur, Hyderabad, Islamabad, Jamshoro, Jhang, Karachi, Kasur, Kharian, Lahore, Lalamusa, Lodhran, Mardan, Mirpur, Mirpur khas, Multan, Murree, Naran, Nowshera, Okara, Pakpattan, Peshawar, Quetta, Rahim Yar khan, Rawalpindi, Sadiqabad, Sarai Alamgir, Sargodha, Sialkot, Sukkur, Swat, Talagang, Taxila, Vehari, Wah and their locations, Size (Marla, Kanal, Square yard), URL, Descrition, Title, Built-in Year, Parking space.
- Records also contain properties available with amenties such as Double Glazed windows ,Servant quarters,Kitchens,Bathrooms,Bedrooms, Central Heating, Flooring, Electricity Backup, Waste Disposal, Floors, Furnished, Drawing Room, Dining Room, Study Room, Prayer Room, Powder Room, Store Rooms, Steam Room, Lounge or Sitting Room, Laundry Room, Broadband Internet Access, Satellite or Cable TV Ready, Intercom,

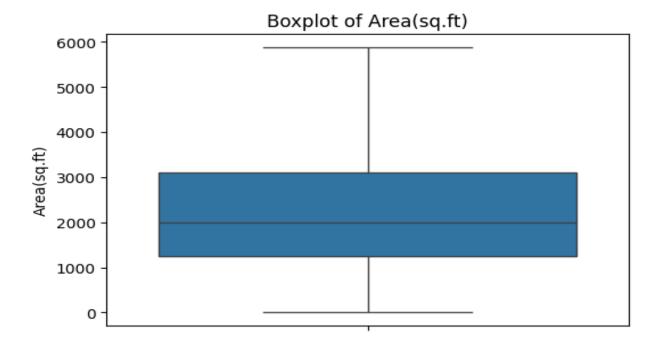
Community Lawn or Garden, Community Swimming Pool, Community Gym, First Aid or Medical Centre, Day Care Centre and some other features.

5. Analysis and key insights:

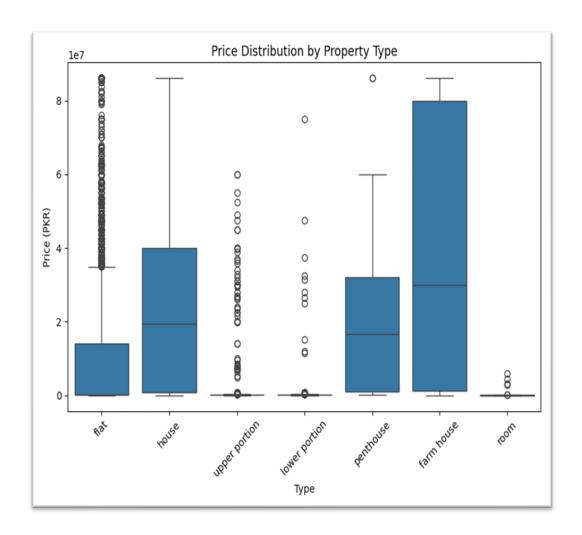
- There are total 59 columns and 18256 Rows depicting the aforementioned information.
- The columns containing >50% missing values was removed and it was observed that many columns specifically lists of amenities were not having any proper information. Some of them were 100% missing. Such columns were removed to smooth the analysis.
- There were no duplicates found in the data and inconsistency were analyzed ,outliers in price, area were handled. Another column named 'Category' was created where properties of commercial and residential type were categorized. Similarly a uniform area (sqrft) was created after conversion of properties (kanal, Marla, Sqr. yard) based on their property category.
- Some missing values were found in prices ,area too,they were handled to make the analysis affective while maintaining the integrity of data.
- Uni and bivariate analysis was performed and results were depicted both in form of several boxplots, a heatmap, and some histograms.

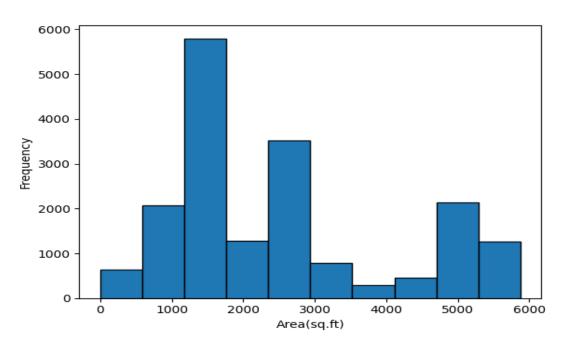


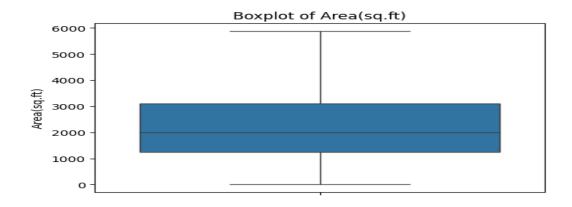
- Most Popular House Sizes are of 1200 sqrft that is the highest peak (approximately 3,700 properties)
- Small to medium houses are of 2500 sqrft which is the second peak (approximately 3100 properties)
- o Large houses are of 5000 sqrft which is the third peak (approximately 2200 properties)
- Luxury homes 6000 sqrft which is the smaller peak (approx.1100 properties) that means very large houses

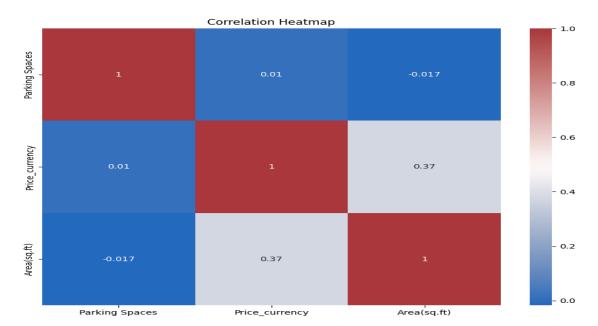


- O This shows the statistical summary of all property sizes in the market The box and lines tell us about typical, small, and large properties
- \circ Q1 (approx.1,400 sq.ft) is 25% of properties are smaller than this Median (approx.2,000 sq.ft)
- o Q3 (approx.3,100 sq.ft): 75% of properties are smaller than this
- o Range: Most properties are between 1,400-3,100 sq.ft
- o Thus most common range: 1400-3100 sqr.ft area Anything above 3100 sq.ft is considered large Very few properties are bigger than 6,000 sq.ft



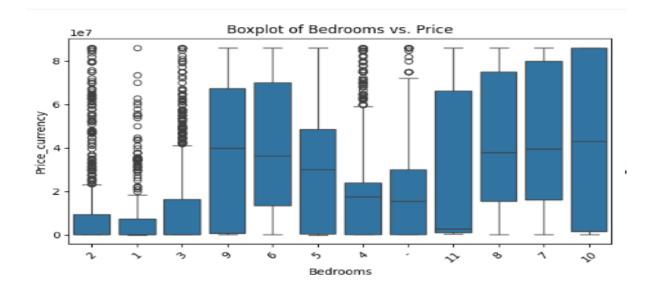


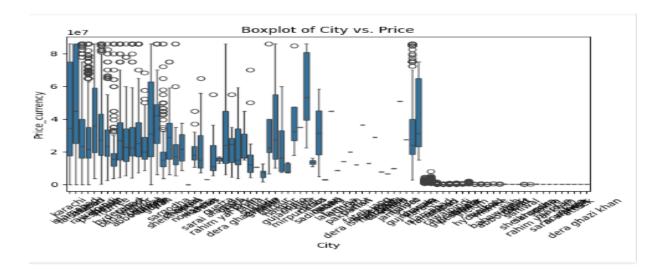




Interpretation

Price and Area are positively correlated but parking spaces is not, So Increasing/Decreasing area would definitely affect price but not much





Interpretation

- 1-Karachi covers just 35M as median, other cities are showing too cluttered in plot
- 2-Farm House has highest median price approx.30M
- 3-Penthouse second highest approx.17M median
- 4- House third highest approx.(19M) median
- 5- Flat is having lower median of 14M and with many high-value outliers up to 85M
- 6-Upper Portion very low median approximatly 1M
- 7-Lower Portion and Room consistently cheapest which is 0.5M each

6.Insights & Recommendations:

- 1-Monitor the farm house category for potential high-value opportunities
- 2-Investors are recommended to focus on mid-range properties such as 1,000-2,500 sqrft area
- 3-There's a positive correlation between area and price BUT so many variations happens according to other variables such as city, parking spaces etc affect strongly
- 4-Buyers would target 2-3 bedroom properties for good value in the residential segment, so good opportunity for sellers
- 5-Properties around 1,500-2,000 sq ft area here are providing better price-per-square-foot ratio
- 6-Upper and lower portion properties show less price variations

7. Conclusion and next steps

(i) Summary of findings:

- The real estate data shows a big differences in prices across different property types and locations. Farm houses are the most expensive properties, while most regular homes are between 1,000-2,500 square feet in size. There's a major problem with the data over 7,000 properties show prices close to zero, which could mean foreclosed homes or any kind of data entry(collection) mistakes.
- o Some cities are much more expensive than others.
- The market has two main groups: luxury properties (penthouses and farms) and regular family homes. Home size and price go up together, but other things like location also affect the final price. Properties around 1,500-2,000 square feet give the best value for money.

(ii) Recommendations for Skateholders:

- o It is recommended to buy farm houses for higher profits ,but keep most of your money in regular family houses ,flats etc.
- o It is suggested to focus on buying homes between 1,000-2,500 square foot because they sell easily and also have good demand
- o It is also suggested to go for 3-4 bedroom house property