

# HOUSING PRICES ON METROPLITAN CITY IN INDIA

## 1. INTRODUCTION

Since the inception of the theory and idea of development, the common feature that emerged in different point of time is the developmental gap that emerged in different parts of the world and also among various parts of a country in a particular time period. This disparity in development, like many other indicators, has also been reflected in India. Traditional development theories believed that agriculture, industrialisation, urbanisation, are significant ingredients of growth, and, ultimately important prerequisites for achieving development. Within the economy itself, the status of growth of a state can be judged through its performance in agricultural and industrial production, performance of service sector and urbanisation, and their impact through their contribution in income and employment generation at the national level. Thus, house price behaviour may also reflect some short of developmental status of the households of a country. Keeping in view the above fact of rapid urbanisation and regional disparities, it is not unexpected that it may lead to some sort of differences in regional house prices, where housing and real estate are considered as major sources of physical and financial asset. This also leads to the differences in the dynamics of house price determination. It simply means that there might be shift of house prices in cities from average, in the country, depending upon its economic status. For instance, average house prices in the poorer provinces might be lower than the national average. Similarly, for richer states, the urban house prices, on average might be higher than the national average. 1 Postdoctoral Research Fellow, Department of Economics, University of Pretoria, South Africa. Email: goodness.aye@up.ac.za. 2 Assistant Professor, Department of Rural Management & Development, Tripura University, India. Email: sam449@gmail.com. 3 Corresponding author. Professor, Department of Economics, University of Pretoria, South Africa. Email: rangana.gupta@up.ac.za. Regional and Sectoral Economic Studies Vol. 13-1 (2013) 174 The Times of India (2012) report indicates that housing prices in India witnessed the steepest rise in the world in the last 10 years since 2001. "House prices in India have increased by 284% in real terms, after allowing for inflation — equivalent to an average annual rise of 14%. The upward movement could be due, significantly, to, rapid urbanisation, increase in population, migration from rural areas as a result of unsatisfactory performance in agriculture and expectation for better livelihood, in terms of greater earning possibilities in urban areas. Only couple of cities registered price decline in the last quarter of 2011. Hence, this paper focuses upon residential property prices in metropolitan cities in India, more specifically, on the study of fifteen metropolitan cities located at different parts of the country consisting Delhi, Mumbai, Bengaluru, Kolkata, Chennai, Jaipur, Lucknow, Hyderabad, Pune, Surat, Ahmedabad, Patna, Faridabad, Kochi and Bhopal. Due to their locations, the cities are having regional characteristics. Against this background, the basic question that arises is whether these fifteen metropolitan cities act as a single market or they work separately as segmented independent metropolitan housing markets within the country. In other words, does the Law of One Price (LOOP) hold true in the housing market of the fifteen metropolitan cities of India? Although a number of studies have been conducted for some countries to determine the

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convergence of house prices in the respective regions<sup>4</sup>, to the best of our knowledge, no such study has been conducted for India

## 1.2 PURPOSE

The standard price behaviour of a good or its close substitute reveals the same price movements and they generally vary within a price range, when they are sold at markets located at different places (Shepherd, 1997; Lipczynski et al., 2005). Two houses in two different locations are believed to be sold within the same market, if house prices in one location impose a competitive constraint on house prices in the other location (Motta, 2004; Carlton and Perloff, 2005). For example, whether a home owner is free to set the price of his house in, say, Kolkata without any difficulty that may occur from the house going to be sold in Delhi or in Mumbai or in any other city in the country. Here, two different situations may arise. In the first situation, the home owner in Kolkata may face problem in setting a competitive price of his house. In the second situation, he may not face the same and can freely set the price of his house. If situation one arises, then it will imply that residential house market in Kolkata is an integrated part of the single house market prevailing in the country and there exists less scope of price fluctuation in the long run. Therefore, LOOP holds when the housing market is single and not segmented, and their absolute prices should converge. It means that relative prices of the houses should be mean reverting or stationary. If the second situation arises and the home owner can freely set the price of his house, then it will imply that Kolkata and other cities are having the residential housing market of their own and the house price in one part of the country is not going to pose any threat to the house prices to be set in other parts of the country and there exists a possibility of price divergence in the longer run. <sup>4</sup> See Drake, 1995; Holmes and Grimes, 2007; Burger and Van Rensburg, 2008; Das et al., 2010; Hiebert and Roma, 2010; Abbott and De Vita, 2011; Cook, 2011

## 2. PROBLEM DEFINITION & DESIGN THINKING

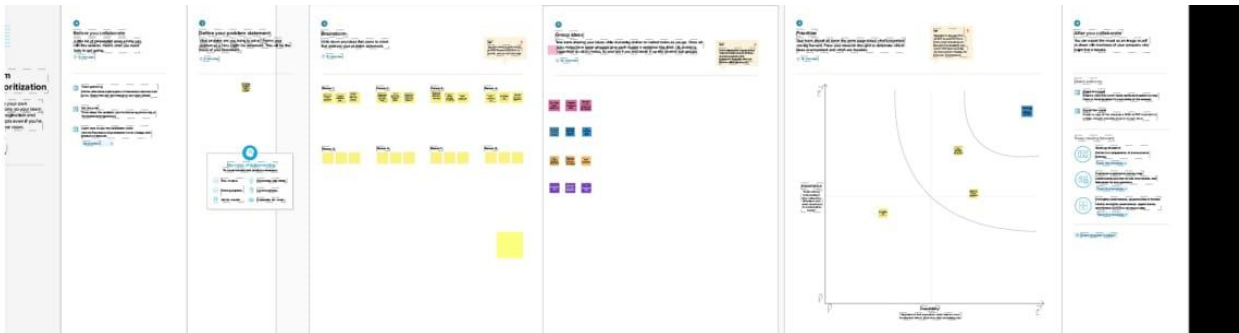
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## 2.1 EMPATHY MAP

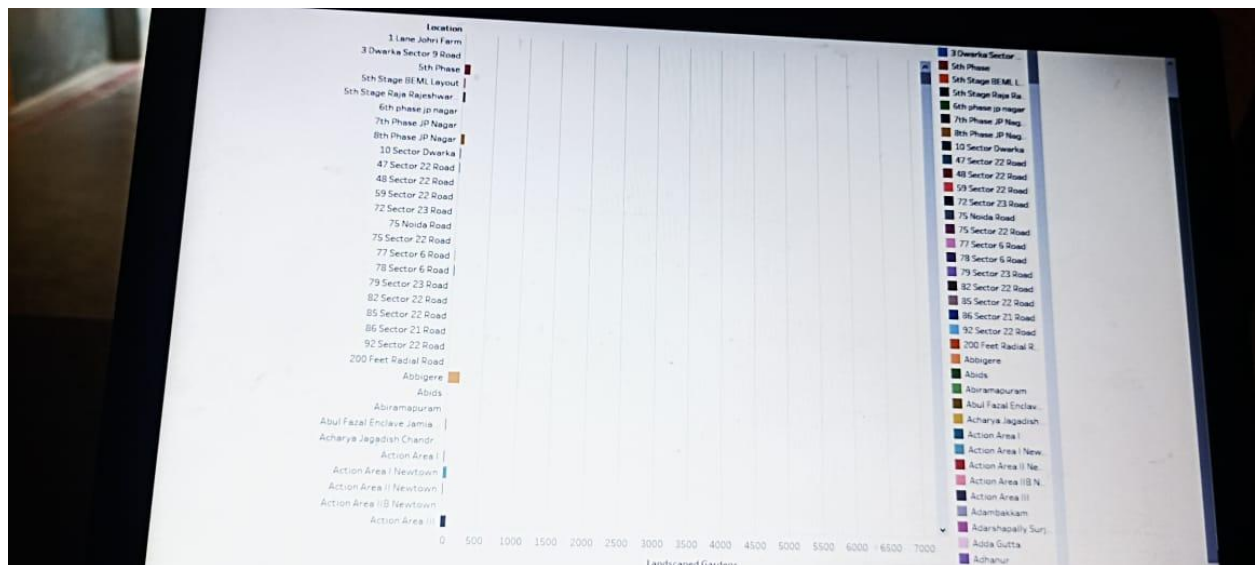


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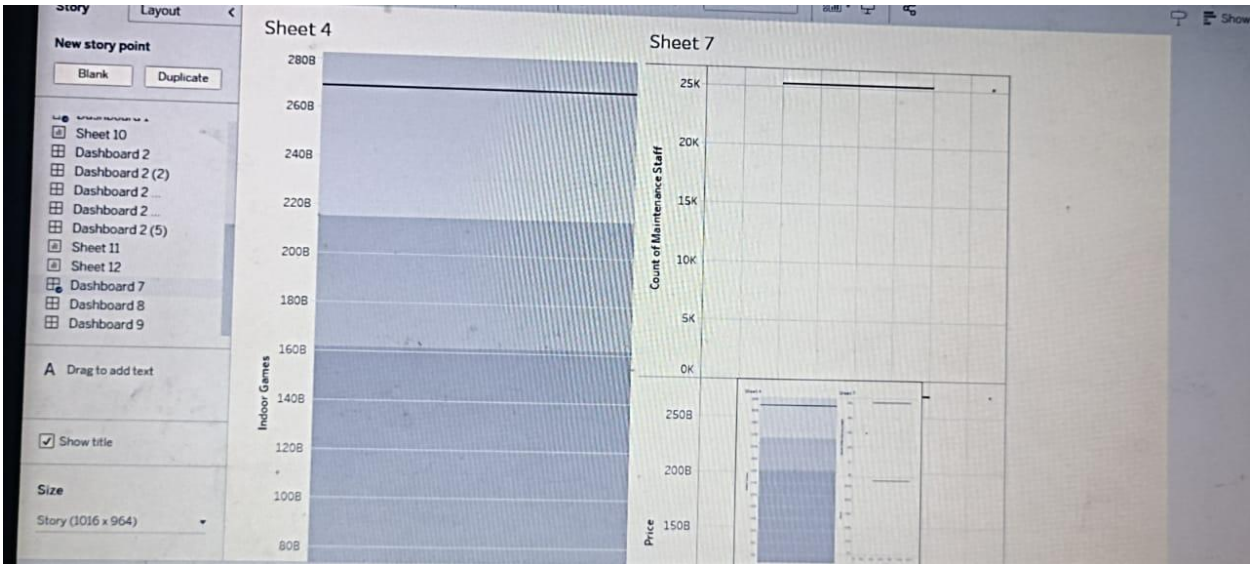
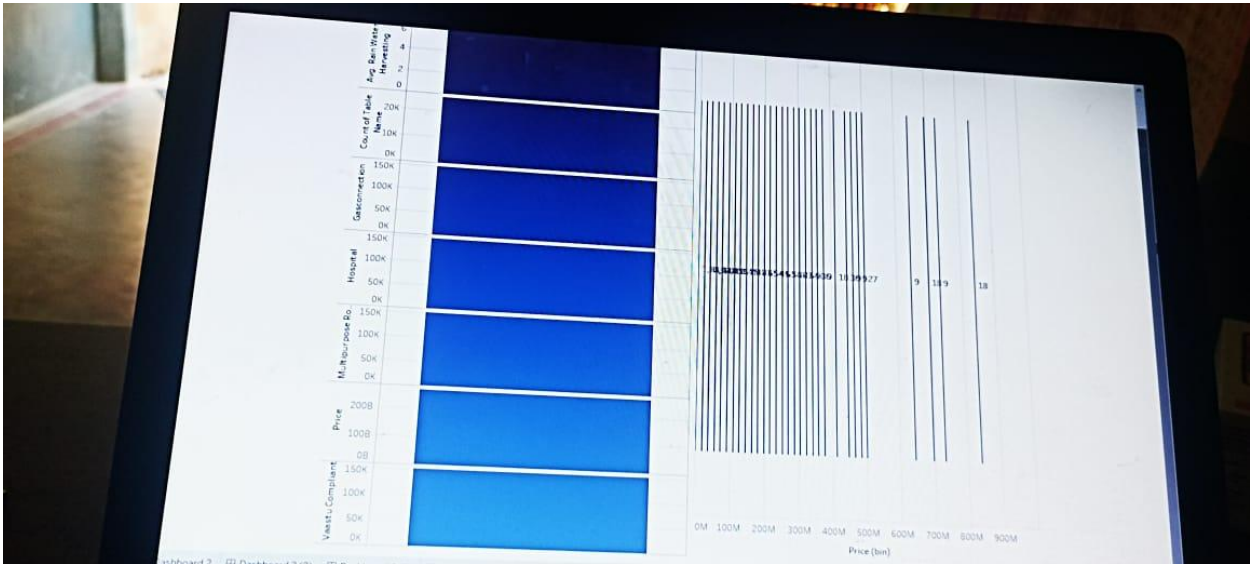
## 2.2 BRAINSTORMING MAP



### 3. RESULT



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## 4. ADVANTAGES & DISADVANTAGES

### ADVANTAGES

1. Must pay annual property taxes and homeowners' insurance (if you have a mortgage)
2. Comes with regular maintenance costs (for painting, mowing, edging, tree-trimming, plumbing, roof repairs, etc.
3. Stability and peace of mind
4. Can usually generate equity (money ) long- term (

### DISADVANTAGES:

- Outdated building code compliance and other maintenance. ...
- Location, location, location. ...
- Lack of storage space. ...
- Cost. ...
- Availability and furnishings. ...
- :Electric neighborhoods. ...
- A long-term investment (if upkeep isn't too pricey)

## 5. TABLES

City	Average Price Q2 2023(₹/sq ft)	
Chennai	7,653	6%
Delhi NCR	8,652	14%
Hyderabad	10,530	13%

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Kolkata

7,315

15%

## 6.CONCLUSTION

This paper analyzes whether the Law of One Price (LOOP) holds in the housing market of fifteen metropolitan areas in India, namely Delhi, Mumbai, Bengaluru, Kolkata, Chennai, Jaipur, Lucknow, Hyderabad, Pune, Surat, Ahmedabad, Patna, Faridabad, Kochi and Bhopal. We test the existence of LOOP using the Im, Pesaran and Shin (2003) panel unit root test based on quarterly data on residential property prices covering the period of 2007Q1 to 2011Q4 of the Indian housing market. Based on the criterion of price convergence, house prices in the 15 metropolitan cities do not converge to the LOOP. This implies that the housing markets in the different areas operate as segmented independent local markets. Therefore, house prices in one location in India cannot impose a competitive constraint on house prices in other location, and as such a home owner can freely set the price of his house.

## 7.FUTURE SCOPE

SVM model is giving better accuracy as the mean absolute error is the least among all the other regressor models i.e. 0.18 approx. To get much better results ensemble learning techniques like Bagging and Boosting can also be used.

To create a linear model that quantitatively relates house prices with variables such as number of rooms, area, number of bathrooms, etc. To know the accuracy of the model, i.e. how well these variables can predict house prices.

THE END

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