HOTEL ROOM PRICING IN INDIAN MARKET

* Tourism has now become a significant industry in India and is growing at a rapid pace.It is a sun rise industry, an employment generator, a significant source of foreign exchange for the country. Tourism in India is the third largest foreign exchange earner of the country. The booming tourism industry has had a cumulative effect on the hospitality sector with an increase in the occupancy ratios and average room rates and therefore the hospitality sector is also flourishing.
* The Indian government is taking several steps to make India a global tourism hub. The government has initiated ‘Project Mausam’ under which it has proposed to establish cross cultural linkages and to revive historic maritime cultural and economic ties with 39 Indian Ocean countries. Further, the government plans to cover 150 countries under e-visa scheme by the end of the year. The government has also introduced e-Tourist Visa (e-TV) for 150 countries as against the earlier coverage of 113 countries (source: Ministry of Tourism).
* The hotel industry in India flourishes largely due to the growth in tourism and travel. Due to the increase in tourism with rising foreign and domestic tourists, hotel sector is surely bound to grow. The emergence of budget hotels in India largely caters to the majority of the population who seek affordable stay. International companies are also increasingly looking at setting up such hotels. Imbalance in increase in tourists both domestic and foreign not been supported with equal number of rooms is a latent source of opportunity for growth.

This report addresses the following issues concerning the “price of hotels” with respect to the various parameters concerned with it. The first issue concerns the pricing strategies employed by hotels . In this report , we investigate how a hotel determines its price .

OVERVIEW  
Our study mainly revolves around the Room Rent which is the dependent variable here.

Rent for the cheapest room, double occupancy, in Indian Rupees.

Some hotels have more than one type of double occupancy room. For simplicity, we picked the cheapest room with double occupancy

EXTERNAL FACTORS

Many external factors can potentially influence the RoomRent. The dataset captures some of these external factors, as explained below.

|  |  |  |
| --- | --- | --- |
| VARIABLE | UNITS | MEANING |
| Date | Text | We have hotel room rent data for the following 8 dates for each hotel:  {Dec 31, Dec 25, Dec 24, Dec 18, Dec 21, Dec 28, Jan 4, Jan 8} |
| IsWeekend | Dummy | We use ‘0’ to indicate week days, ‘1’ to indicate weekend dates (Sat / Sun) |
| IsNewYearEve | Dummy | ‘1’ for Dec 31, ‘0’ otherwise |
|  |  |  |
| CityName | Text | Name of the City where the Hotel is located   e.g. Mumbai` |
| Population | Number | Population of the City in 2011 (See Table A1 below) |
| CityRank | Dummy | Rank order of City by Population (e.g. Mumbai = 0, Delhi = 1, so on); (See Table A1) |
| IsMetroCity | Dummy | ‘1’ if CityName is {Mumbai, Delhi, Kolkatta, Chennai}, ‘0’ otherwise |
|  |  |  |
| IsTouristDestination | Dummy | We use ‘1’ if the city is primarily a tourist destination, ‘0’ otherwise. For example, Goa and Agra are primarily tourist destinations. We assume that most people who visit Goa and Agra and stay in their hotels are in these cities primarily for tourism. |

INTERNAL FACTORS

Many Hotel Features can influence the RoomRent. The dataset captures some of these internal factors, as explained below.

|  |  |  |
| --- | --- | --- |
| VARIABLE | UNITS | MEANING |
| HotelName | Text | e.g. Park Hyatt Goa Resort and Spa |
| StarRating | Number | e.g. 5 |
| Airport | km | Distance between Hotel and closest major Airport |
| HotelAddress | Text | e.g. Arrossim Beach, Cansaulim, Goa |
| HotelPincode | Number | 403712 |
| HotelDescription | Text | e.g. 5-star beachfront resort with spa, near Arossim Beach |
| FreeWifi | Dummy | ‘1’ if the hotel offers Free Wifi, ‘0’ otherwise |
| FreeBreakfast | Dummy | ‘1’ if the hotel offers Free Breakfast, ‘0’ otherwise |
| HotelCapacity | Number | e.g. 242.  (enter ‘0’ if not available) |
| HasSwimmingPool | Dummy | ‘1’ if they have a swimming pool, ‘0’ otherwise |

**Table A1:  City Rank (based on 2011 City Population)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CITYRANK** | **CITYNAME** | **IsHolidayDestination** | **Number of Hotels listed on Hotels.com** | [**City Population(2011)**](https://en.wikipedia.org/wiki/List_of_cities_in_India_by_population#cite_note-Cities1Lakhandabove-3) |
| 0 | Mumbai | 0 | 405 | 12,442,373 |
| 1 | Delhi | 0 | 871 | 11,034,555 |
| 2 | Bangalore | 0 | 450 | 8,443,675 |
| 3 | Chennai | 0 | 287 | 7,088,000 |
| 4 | Hyderabad | 0 | 237 | 6,731,790 |
| 5 | Ahmedabad | 0 | 136 | 5,577,940 |
| 6 | Kolkata | 0 | 192 | 4,496,694 |
| 7 | Surat | 0 | 20 | 4,467,797 |
| 8 | Pune | 0 | 205 | 3,124,458 |
| 9 | Jaipur | 1 | 286 | 3,046,163 |
| 10 | Thrissur | 0 | 36 | 2,975,440 |
| 11 | Lucknow | 0 | 37 | 2,817,105 |
| 12 | Kanpur | 0 | 13 | 2,765,348 |
| 13 | Amritsar | 1 | 72 | 2,490,891 |
| 14 | Indore | 0 | 49 | 1,960,631 |
| 15 | Agra | 1 | 102 | 1,760,285 |
| 16 | Madurai | 1 | 21 | 1,465,625 |
| 17 | Goa | 1 | 626 | 1,457,723 |
| 18 | Rajkot | 0 | 26 | 1,286,678 |
| 19 | Varanasi | 1 | 60 | 1,201,815 |
| 20 | Srinagar | 1 | 57 | 1,180,570 |
| 21 | Jodhpur | 1 | 81 | 1,033,918 |
| 22 | Chandigarh | 0 | 117 | 960,787 |
| 23 | Thiruvathipuram | 0 | 128 | 957,730 |
| 24 | Guwahati | 0 | 12 | 957,352 |
| 25 | Mysore | 1 | 58 | 887,446 |
| 26 | Bhubaneswar | 0 | 29 | 837,737 |
| 27 | Kochi | 1 | 188 | 595,575 |
| 28 | Mangalore | 0 | 13 | 499,487 |
| 29 | Udaipur | 1 | 113 | 451,735 |
| 30 | Pondicherry | 0 | 42 | 241,773 |
| 31 | Haridwar | 1 | 73 | 228,832 |
| 32 | Puri | 1 | 24 | 201,026 |
| 33 | Shimla | 1 | 58 | 169,578 |
| 34 | Panchkula | 0 | 118 | 140,925 |
| 35 | Darjeeling | 1 | 32 | 132,016 |
| 36 | Rishikesh | 1 | 107 | 102,138 |
| 37 | Gangtok | 1 | 30 | 98,658 |
| 38 | Ooty | 1 | 64 | 88,430 |
| 39 | Jaisalmer | 1 | 82 | 65,471 |
| 40 | Nainital | 1 | 85 | 41,377 |
| 41 | Munnar | 1 | 108 | 38,471 |
| 42 | Manali | 1 | 80 | 8,096 |

* With a rise in online competition, popular models have come up with online travel agents (OTAs) offering a single marketplace for all travel-related needs. There are also seen meta search engines like TripAdvisor and MakeMyTrip, that operate like travel discovery platforms. Further, online accommodation reservation services like Oyo Rooms have gained popularity. Apart from this, branded hotels are seen operating direct bookings through their websites.

It should be noted that that the base for tourism in India is still very low. The spurt in demand for hotel accommodation over the last few years has inflated hotel rooms in the country. However, a number of international brands across all hotel segments are planning to or have recently entered the Indian market. Furthermore, domestic hotel chains, too, are embarking on strong expansion and development plans across all hotel segments.

DATA

The data for analysis was collected from [www.hotels.com](http://www.hotels.com)

HYPOTHESIS

*The Room Rent depends on the independent variables like  
distance from airport,capacity of the hotel and the star rating.  
Here the independent variables were selected from the bunch of parameters based on intuition.*

MODEL 1

Regression analysis was performed with y as the room rent and x1 x2 x3 as distance from airport ,star rating and hotel capacity.  
Results were observed

After analysis of model 1 the regression model was performed on all the parameters.  
After that leap analysis was done by making use of the leaps package in R

On the basis of the degree of darkness of variables in the leaps plot some of the parameters were eliminated who were white and model 2 was created.

MODEL 2

Model 2 consisted of all the variables except airport ,isweekend, freebreakfast.

The regression analysis was done on model 2 and the results were tabulated  
The predicted results from model 1 and model 2 were compared with actual data and it was found out that model 2 was much closer to the actual data thus making the model 2as a much better OLS model as compared to model 1

AIC tests were performed and AIC of model 2 was lesser than model 1 so model 2 was selected for the linear equation.

CONCLUSION

By analysing both the models it can be concluded that the Room rent depends on parameters such as

CityRank,IsMetroCity,IsNewYearEve,IsTouristDestination,StarRating,FreeWifi,HotelCapacity,HasSwimmingPool

to a much larger extent.

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[www.hotels.com](http://www.hotels.com)