

## **The Impact of COVID-19 on the Hospitality sector: Case study of a Hotel at Navi Mumbai**

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### **Abstract:**

The COVID-19 pandemic and the restrictions imposed on travel, individual movement and business activity are having an unparalleled impact on the industry and economy. The Indian hospitality sector has been hit hard and is experiencing an all-time low demand amid the COVID-19 outbreak with fewer future bookings. The imposition of Section 144 (prohibition against mass gatherings), suspension of visas, global travel advisories, India like most of the other countries was on a lockdown with unprecedented ramifications (HVS, 2020). In the current health crisis, the decline in hotel average daily rate and occupancy rate is being affected by an external factor, the COVID-19 pandemic which has led to a negative impact in the hotel values (HVS, 2020). When the future seems uncertain and investments risky and illiquid, the decision to invest at some point in time and the impact on the value of the subject property are the key issues. The research methodology used for this study comprises of primary and secondary research and the findings establish the impact of COVID-19 pandemic on the value of Hotel ABC situated at Vashi, Navi Mumbai.

Keywords: Hotel values, health crisis, average daily rate, occupancy rate.

### **Introduction:**

The Indian hospitality sector experienced a record year in 2019 and sailed smoothly into January 2020, with 2020 expected to be 'much bigger'. The country initially began to feel the ripple effects of the universal COVID-19 turmoil at the end of February 2020, which became more worse in the

beginning of March (HVS, 2020). The occupancy rate across the various hotels in major cities declined rapidly and it was found that it had declined by an astonishing 45 percentage points when compared to the previous year. Such a sharp decline within a short period of time was never witnessed by the hospitality sector. The second quarter of the year is worst hit and hotels are not able to drive rates and are even opting for deep discounts to attract business (HVS, 2020).

### **Objective:**

The primary objective of the study is to assess the potential impact of the current downturn on the fair market value of the hotel ABC property by developing two valuation scenarios.

### **Methodology:**

Primary and secondary survey of Hotel ABC property was conducted to derive the necessary data points required for arriving at the fair market value of the subject hotel property.

The Discounted Cash Flow method in the income capitalization approach has been used while valuing the hotel ABC property and projections for ten years have been forecasted. The assumptions for the different heads in income and expenses are obtained from various reports.

### **Why Discounted Cash Flow Method?**

A hotel property is a unique form of real estate as it does not generate cash flow on a m<sup>2</sup> basis unlike the other real estate asset classes (residential, commercial, retail, etc.). Hotel properties are usually valued by the discounted cash flow method in the income capitalization approach as it provides the valuer with the most persuasive and provable findings when valuing a hotel property (Rushmore, Stephen and Eric Baum, 2001). The discounted cash flow method in the income capitalization approach states that the value of a property is measured by its net return, which is also known as the 'present value of future benefits.' The future benefits of the income producing assets like the hotels are the net income estimated by forecasting the income and expenses and, also considering the anticipated proceeds from a future sale. These benefits can then be converted into an indicator of market value by the capitalization method and discounted cash flow analysis (Rushmore, Stephen and Eric Baum, 2001) (Stephen Rushmore, 1992).

### **Valuation Standards adopted for the Hotel property:**

*'RICS (Royal Institute of Chartered Surveyors) Valuation – Global Standards 2020'*

Generally known as RICS ‘Redbook Global’, the RICS Valuation Global Standards incorporates international valuation guidelines for different asset classes. The ‘Redbook Global’ represents a combination of professional, technical and performance standards to provide high quality valuation advice to the clients.

It incorporates International Valuation Standards (IVS) which are mentioned in the International Valuation Standards Council (IVSC). The ‘Redbook Global’ also includes the RICS glossary of technical terms, valuation technical and performance standards, valuation approaches and methods (VPS 5), valuation applications for different purposes and International Valuation Standards.

**RICS (Royal Institute of Chartered Surveyors) glossary of technical terms:**

Following are the terminologies mentioned in the RICS (Royal Institute of Chartered Surveyors) Redbook Global:

<b>Terminology</b>	<b>Definition</b>
<b>Valuation</b>	“An opinion of the value of an asset or liability on a stated basis, at a specified date. Unless limitations are agreed in the terms of engagement this will be provided after an inspection, and any further investigations and enquiries that are appropriate, having regard to the nature of the asset and the purpose of the valuation.”
<b>Basis of value</b>	“A statement of the fundamental measurement assumptions of a valuation.”
<b>Date of valuation</b>	“The date on which the opinion of value applies. The valuation date shall also include the time at which it applies if the true value of the type of asset can change materially in the course of a single day.”
<b>Assumption</b>	“A supposition taken to be true. It involves facts, conditions or situations affecting the subject of, or approach to, a valuation that, by agreement, do not need to be verified by the valuer as part of the valuation process. Typically, an assumption is made where specific investigation by the valuer is not required in order to prove that something is true.”

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<b>Market value (MV)</b>	“The estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion.”
<b>Income approach</b>	“An approach that provides an indication of value by converting future cash flows to a single current capital value.”
<b>Market approach</b>	“An approach that provides an indication of value by comparing the subject asset with identical or similar assets for which price information is available.”
<b>Cost approach</b>	“An approach that provides an indication of value using the economic principle that a buyer will pay no more for an asset than the cost to obtain an asset of equal utility, whether by purchase or construction.”

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Table 1: RICS (Royal Institute of Chartered Surveyors) terminologies

Source: (RICS, 2020)

### **Hotel ABC Property Details:**

The Hotel ABC at Vashi is situated in Sector 19 - D, Vashi, Navi Mumbai which is besides the APMC market. It is located adjacent to the Palm Beach Galleria Mall. The area in which the hotel property is situated is predominantly characterized by residential sector and business district. It is surrounded by social infrastructure like Palm Beach Galleria Mall & a number of schools like Avalon heights International school, Evolve Business school, etc. The hotel ABC at Vashi offers a perfect ambience to the business travelers (Hotel ABC Property, 2020). It is designed with beautiful interiors and traditional Indian textures and patterns. The subject property features amenities like banquet and conference facilities, an Indian speciality restaurant, health club, business center, club lounge and roof top swimming pool (Hotel ABC Property, 2020). The hotel at Vashi has the largest banquet hall in Navi Mumbai and 5th largest in Mumbai and it can also be converted into small halls or a single large hall (Hotel ABC Property, 2020). It is accessible from 4.80 m wide internal road. The hotel property has a frontage of approximately 64 m on the said road. Further, the hotel property is rectangular in shape and on a flat land. The hotel property has a retail mall just besides it (Hotel ABC Property, 2020).

Name	Size (Sq. ft.)	Seating (Pax)		
		U-Shape	Theatre Style	Classroom
<b>Helios</b>	2200	55-60	200-220	55-60
<b>Zeus</b>	1900	40-45	180-200	45-50
<b>Venus</b>	1900	40-45	160-180	40-45
<b>Apollo</b>	1800	40-45	160-180	40-45
<b>Pre-function</b>	2000			

Table 2: Banquet facilities at Hotel ABC in Vashi

Source: (Hotel ABC Property, 2020)

**Executive Summary of Hotel ABC:**

Location Attributes	
<b>Property Valued</b>	Hotel ABC at Vashi
<b>Site address</b>	Plot No. 16, Sector 19-D, Vashi
<b>Road/ Street Name</b>	Vashi Road
<b>Nature of Assignment</b>	Valuation for academic purpose

Source: (Hotel ABC Property, 2020)

Property Attributes	
<b>Plot area (sq. M.)</b>	2750.54
<b>Built-up area (sq. M.)</b>	8028.72
<b>Shape</b>	Rectangular
<b>Frontage</b>	80 feet
<b>No. Of floors</b>	G+5
<b>Type of ownership</b>	Leasehold
<b>Title of the property</b>	Not Available
<b>Topography</b>	Flat Terrain
<b>Car parks</b>	70-80 car parks
<b>Construction status</b>	Completed
<b>Year of completion</b>	2008

Source: (Hotel ABC Property, 2020)

<b>Infrastructure features</b>	
<b>Sewerage, drainage &amp; water facilities</b>	Functional & good condition
<b>Parking</b>	Free parking facility
<b>Landscaping</b>	Well maintained & lush green
<b>Exterior facade of the building</b>	Good state
<b>Interiors of the hotel property</b>	Well maintained
<b>Access</b>	Internal road access from palm beach road

Source: (Hotel ABC Property, 2020)

<b>Legal Attributes</b>	
<b>Title</b>	No title information available
<b>Disputes</b>	Not known
<b>Usage</b>	Commercial use

Source: (Hotel ABC Property, 2020)

### **Valuation Model:**

To assess the potential impact of COVID-19 on hotel values, two valuation scenarios have been modelled and compared with the base case scenario which is pre-COVID. This analysis intends to reflect the present market condition when seen through the eyes of prospective buyers and sellers.

### **Valuation Parameters:**

A ten-year discounted cash flow analysis was considered for each of the years from 2020 to 2029 to reflect the pattern of value recovery year-over-year.

### **Basis for cap rate:**

Cap Rate is determined by Band of Investment method.

<b>Loan to value ratio</b>	<b>Amortization period</b>	<b>Interest rate</b>	<b>Present Value of similar property</b>	<b>Cash on cash return</b>
55%	10 years	9.25%	₹ 120 Cr.	16%

Table 3: Cap rate determinants

Source: (99acres, 2020), (Property Metrics, 2020), (Broker, 2020) (Iserve Financial, 2020)

Hence,  $PMT = ₹ 15,357,395.08$ . Annual  $PMT = ₹ 184,288,741.00$ . Mortgage constant = 0.1536.

Therefore, Cap rate =  $(55\% \times 0.1536) + (45\% \times 0.16) = 0.1564$  i.e. 15.64%.

**Basis for discount rate:**

Discount Rate is determined by dividend discount model, which is also known as Gordon’s model.

Discount rate = Cap Rate + Growth Rate =  $15.64 + 2.80 = 18.44\%$  (Jackson, January, 1994)

**Valuation Scenarios Model:**

**Base case scenario** – This scenario mirrors the forecast on the basis where there was no major impact expected from COVID-19. The underlying assumption of this forecast is that the hospitality sector was supposed to stabilize when compared to 2019 and that the impact will affect the average daily rate in large measure.

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
No. of Rooms	85	85	85	85	85	85	85	85	85	85
Occupancy Rate	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Average no. of guests	136	136	136	136	136	136	136	136	136	136
Average Daily Rate (ADR)	15325	15831	16353	16893	17450	18026	18621	19235	19870	20526
Escalation in ADR	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Rev PAR (Rs.)	12260	12665	13083	13514	13960	14421	14897	15388	15896	16421

Table 4: Future forecast for 10 years

Revenue Assumptions	
No. of Operational Days	365 days

<b>Revenue by room</b>	No. of rooms X Occupancy rate X Average daily rate X 365	
<b>Revenue by Food &amp; Beverages</b>	Average no. of guests X 0.5 X 2124 X 365 (50% of the guests order food)	Primary Survey Hotel ABC Price per plate – (₹ 900 + 18% GST) * 2(Lunch & Dinner) = ₹ 2124 (Including Lunch & Dinner)
<b>Banquet Hall</b>	(Price per plate of veg X no. of guests) + (Price per plate of non- veg X no. of guests) X no. of bookings per year  (Banquet Halls are booked 35 to 40 times annually considering 450 guests)	Assumption 50% have Veg & 50% have Non- Veg. 4 banquet halls that can accommodate 100 to 900 guests in total. Prices for Veg -₹ 1100 per plate & Price for Non-Veg - ₹ 1250 per plate. Consideration: 225 Veg plates + 225 Non-veg plates

Table 5: Revenue assumptions

<b>Expenses Assumptions (Departmental)</b>	
<b>Rooms</b>	10% of RR
<b>Food &amp; Beverages</b>	40% of F&B income
<b>Banquet Hall maintenance</b>	10% of Banquet hall income

Table 6: Departmental expenses assumptions

Source: (Horwath HTL, 2018) (IBEF, March, 2019)

<b>Expenses Assumptions (Operating)</b>	
<b>Administrative expenses</b>	1% of Room Revenue
<b>Sales &amp; marketing expenses</b>	1% of Room Revenue



<b>Repair &amp; maintenance</b>	6% of Room Revenue
<b>Energy cost</b>	9% of Room Revenue

Table 7: Operating Expenses Assumptions

Source: (Horwath HTL, 2018) (IBEF, March, 2019)

<b>Expenses Assumptions (Fixed)</b>	
<b>Management fees</b>	7% of Gross Revenue
<b>Property tax</b>	2% of Gross Revenue
<b>Reserve for replacement</b>	3% of Gross Revenue
<b>Insurance</b>	1% of Gross Revenue

Table 8: Fixed expenses assumptions

Source: (Horwath HTL, 2018) (IBEF, March, 2019)

**Net Present Value of the Hotel Property (Base case scenario) = 132.34 Crores.**

**Scenario 1** – This scenario assumes that the current COVID-19 pandemic that started in March 2020 will have a direct effect on the hotel industry performance and that the market and the property will start recovering in early 2021. Scenario 1 is modelled to demonstrate the return to the average daily rate of the hotel in 2019 and assumes a 4-year recovery period to the average daily rate of 2019.

<b>Year</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
<b>No. of Rooms</b>	85	85	85	85	85	85	85	85	85	85
<b>Occupancy Rate</b>	42%	60%	72%	80%	80%	80%	80%	80%	80%	80%
<b>Average no. of guests</b>	71	102	122	136	136	136	136	136	136	136
<b>Average Daily Rate (ADR)</b>	10799	12138	13643	15335	15846	16373	16918	17482	18064	18666

<b>Escalation in ADR</b>	12.4%	12.4%	12.4%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
<b>Rev PAR (Rs.)</b>	4536	7282	9823	12267	12676	13099	13535	13985	14451	14932

Table 9: Future forecast for 10 years

<b>Revenue Assumptions</b>		
<b>No. of Operational Days</b>	365 days	
<b>Revenue by room</b>	No. of rooms X Occupancy rate X Average daily rate X 365	
<b>Revenue by Food &amp; Beverages</b>	Average no. of guests X 0.5 X 2124 X 365 (50% of the guests order food)	Primary Survey Hotel Price per plate – (₹ 900 + 18% GST) * 2(Lunch & Dinner) = ₹ 2124 (Including Lunch & Dinner)
<b>Banquet Hall</b>	(Price per plate of veg X no. of guests) + (Price per plate of non-veg X no. of guests) X no. of bookings per year (Banquet halls are booked 5 times in 2020 considering 50 guests and the number rises every year)	Assumption 50% have Veg & 50% have Non-Veg. 4 banquet halls that can accommodate 100 to 900 guests in total. Prices for Veg -₹ 1100 per plate & Price for Non-Veg - ₹ 1250 per plate.

Table 10: Revenue assumptions

Expenses Assumptions can be referred from the base case scenario.

**Net Present Value of the Hotel Property (Scenario 1) = 104.67 Crores.**

**Scenario 2** – This scenario also assumes that the current COVID-19 has a major impact on the hotel industry but assumes that the hotels will be shut from mid-March through the end of Q2 2020 and that the average daily rate will rebound in five years.

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>No. of Rooms</b>	85	85	858	85	85	85	85	85	85	85
<b>Occupancy Rate</b>	25%	55%	66%	74%	80%	80%	80%	80%	80%	80%
<b>Average no. of guests</b>	42	94	112	126	136	136	136	136	136	136
<b>Average Daily Rate (ADR)</b>	10799	11787	12866	14043	15328	15838	16366	16911	17474	18056
<b>Escalation in ADR</b>	9.15%	9.15%	9.15%	9.15%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
<b>Rev PAR (Rs.)</b>	2700	6483	8491	10392	12262	12670	13092	13528	13979	14444

Table 11: Future forecast for 10 years

<b>Revenue Assumptions</b>		
<b>No. of Operational Days</b>	365 days	
<b>Revenue by room</b>	No. of rooms X Occupancy rate X Average daily rate X 365	
<b>Revenue by Food &amp; Beverages</b>	Average no. of guests X 0.5 X 2124 X 365 (50% of the guests order food)	Primary Survey Hotel Price per plate – (₹ 900 + 18% GST) * 2 (Lunch & Dinner) = ₹ 2124 (Including Lunch & Dinner)
<b>Banquet Hall</b>	(Price per plate of veg X no. of guests) + (Price per plate of non-veg X no. of guests) X no. of bookings per year (Banquet halls are booked 5 times in 2020 considering 50	Assumption 50% have Veg & 50% have Non-Veg. 4 banquet halls that can accommodate 100 to 900 guests in total. Prices for Veg -₹ 1100

	guests and the number rises every year)	per plate & Price for Non-Veg - ₹ 1250 per plate.
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Table 12: Revenue assumptions

Expenses Assumptions can be referred from the base case scenario.

**Net Present Value of the Hotel Property (Scenario 2) = 96.59 Crores.**

**Conclusion:**

The analysis clearly concludes that there has been a significant decline in the value of hotel ABC as observed in both the scenarios (21% decline in scenario 1 and 27% decline in scenario 2) due to COVID-19 pandemic and the economic downturn. As there is uncertainty as to for how much more time this pandemic will last and the fact that the complete recovery will take several years, we foresee that the model scenarios will also change periodically. Sensitivity analysis are likely to be modified as conditions shift and continue to gauge a variety of outcomes.

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