CSID Journal of Infrastructure Development

Volume 5 | Issue 1 Article 7

12-31-2022

A Thematic Literature Review on The Impact of Covid-19 Pandemic on Indian Real Estate

Manaswi S. Bothlikar
RICS School of Built Environment, Amity University Uttar Pradesh, Uttar Pradesh, India, manaswibothlikar123@gmail.com

Triveni Prasad Nanda
RICS School of Built Environment, Amity University Uttar Pradesh, Uttar Pradesh, India, tnanda@ricssbe.edu.in

Recommended Citation

Bothlikar, M. S., & Nanda, T. P. (2022). A Thematic Literature Review on The Impact of Covid-19 Pandemic on Indian Real Estate. *CSID Journal of Infrastructure Development, 5*(1), 83-95. https://doi.org/10.32783/csid-jid.v5i1.255

CSID Journal of Infrastructure Development (5) 1: 87-100
ISSN 2407-4438

A THEMATIC LITERATURE REVIEW ON THE IMPACT OF COVID-19 PANDEMIC ON INDIAN REAL ESTATE

Manaswi S. Bothlikar[1*], Triveni Prasad Nanda[1]

[1]*RICS School of Built Environment, Amity University Uttar Pradesh, Uttar Pradesh, India*

(Received: March 2022 / Revised: August 2022 / Accepted: October 2022)

ABSTRACT

The COVID-19 pandemic has impacted the world badly. Almost all activities were suspended, and thus it severely impacted the economy, including the real estate sector. This ongoing pandemic has pushed the sentiments of the sector to their all-time lowest. This research aims to analyze the influence of the COVID-19 pandemic on the real estate industry in India, as well as to determine the most impacted segments. Report achives from eminent property consultants including Knight Frank, Coldwell Banker Richard Ellis (CBRE), and Cushman & Wakefield were reviewed in this study. The qualitative analysis done to the reports and literature shows that both the residential and commercial segments have been impacted badly. However, the residential market has recovered to its pre-COVID level after the first lockdown. Meanwhile, in the case of the commercial market, the pandemic led to many innovations in the office segment, such as hybrid working, portfolio growth, and the hotelization of office spaces. Such innovations were also found in the retail segment, such as reinventing the experience, use of new-age technology, omnichannel strategy, realigning the retail formats, and so forth. Hence, they have boosted these segments and accelerated the recovery. Amongst all the segments, the hospitality segment was the worst-hit segment. It was the first to fall and is last to rise. Due to the fear of getting infected and travel restrictions, tourism has effectively stopped, and this has greatly impacted the hotel segment.

Keywords: COVID-19; Pandemic; India; Real Estate Sector

1. INTRODUCTION

The upsurge of Coronavirus disease (COVID-19) has hit the world badly. Almost all activities were suspended. Thus, it brings severe consequences since it has been spread all over the world. It made many countries experience a phase of economic slowdown and recession, including India (NDTV, 2020). Amongst all, the real estate sector has been the worst-hit sector. Ongoing economic slowdown, liquidity issues, non-banking financial companies' crises, previous policy measures. Furthermore, reforms such as demonetization, the Goods and Services Tax (GST), and the Real Estate and Regulatory Authority (RERA), were supposed to promote the expansion and growth of the real estate sector. However these initiatives were ineffective (Bhoj, 2020). For this reason, this paper primarily aims to investigate the influence of COVID-19 spread on the real estate industry of India and highlight the crest and troughs in the entire real estate segment during this period.

*Corresponding author's email: manaswibothlikar123@gmail.com, Tel. +91-9168323251
DOI: 10.32783/csid-jid.v5i1.255

Cholera in 1817, Plague in 1896, Spanish flu in 1918 have caused disruptions all over the world, causing demand and prices to decline in the severely impacted areas (Francke & Korevaar, 2021). In general, assessing the epidemics in the short and long term is challenging despite some points being common. Every pandemic is different in its way, has its own life, its characteristics, and its cause. The COVID-19 pandemic is the worst-hit pandemic since the Spanish flu that happened a century ago (Acharjee, 2020).

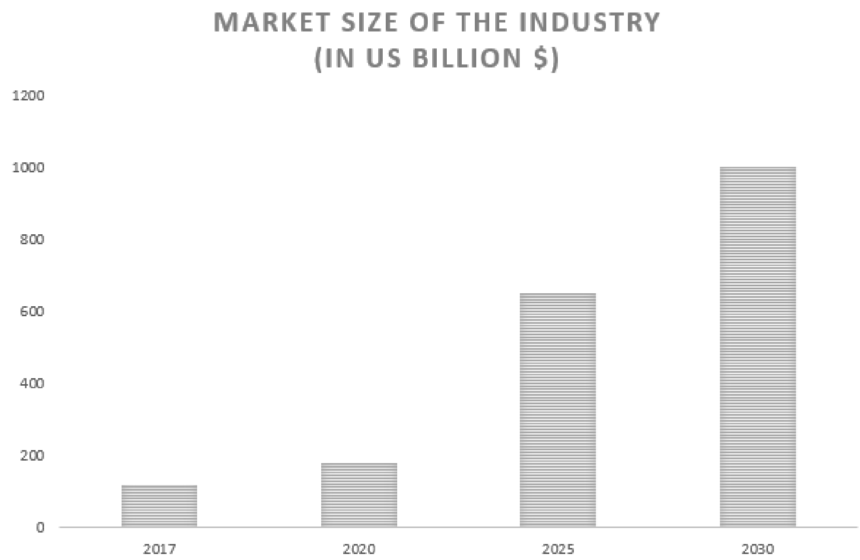

Figure 1 Projected growth in the real estate industry’s market size (CBRE Research, 2021b)

By 2025, Indian real estate sector is expected to contribute 13% of the country’s gross domestic product (GDP) (IBEF, 2021). Currently, as per growth projections by Coldwell Banker Richard Ellis (CBRE), the GDP contribution of the real estate sector in 2021 is 9.1% from 7.4% in 2020 (CBRE Research, 2021b). While Reserve Bank of India (RBI) has projected India’s growth in Q3 and Q4 of FY21 with the contradiction of 7.5%, the full fiscal year (FY) is expected to increase by roughly 9% in FY 2022 (Knight Frank, 2020b). The market of real estate has demonstrated flexibility in the face of a COVID-induced recession, with a robust K-shaped rebound expected in 2021. As can be seen in Figure 1, the growth is projected on a rapid growth trajectory, with a goal of reaching US $1 trillion by 2030 (IBEF Knowledge Centre, 2021).

After agriculture, Indian real estate sector is the second largest source to employment, directly employing 16% of the entire workforce in India. In 2017, 52 million people were employed, with 67 million were predicted to be employed by 2022. With 28.84% growth in five years, it currently appears challenging to attain post covid as the construction industry has encountered a labour shortage and job losses due to liquidity constraints. (Bhoj, 2020).

Property transactions were on hold in the first lockdown which was imposed from March 2020 to June 2020. The Indian economy began to recover from the first wave, only to be devastated by the new wave in March 2021. The new wave was more lethal, but it was more localised and less limiting. As a result, the direct economic impact was less severe, but the harm to health and life was significant, resulting in profound scaring of consumer emotions, which delayed the rebound till 2022 (Chauhan, 2021).

Due to COVID, the unusual year of 2020 experienced massive demand destruction, unpredictability, and uncertainty, followed by long-term doubts about the epidemic as 2021 rolled on. According to the record of other nations, there is a risk of additional waves of COVID. Nevertheless, with the infection incidence in India is decreasing and vaccinations are on the horizon, the worst appears to be behind us. 2021 could be the year of caution, with a resurgence in business and financial activity in second half (H2) of 2021. This is so when the impact of the coming third wave is minimal, if it occurs at all (Knight Frank, 2020b). The residential market will remain steady as a result, while changes in the commercial sector will accelerate. The impact of COVID-19 pandemic on the real estate sector in India is illustrated in Figure 2.

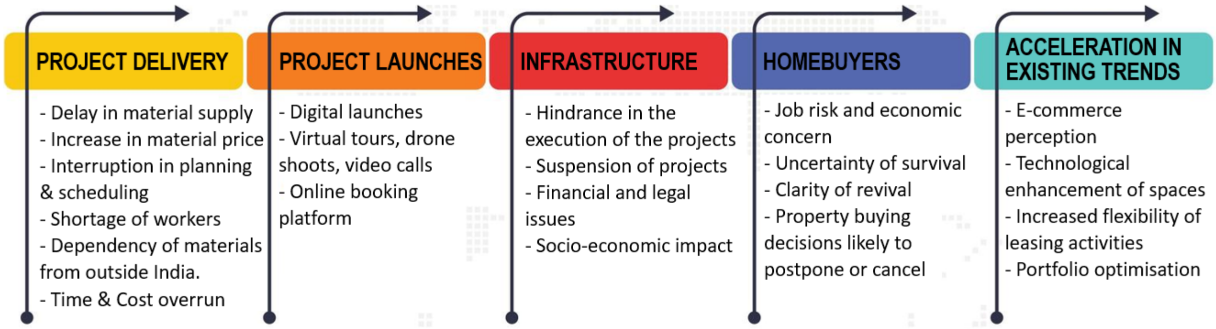

Figure 2 Identified impacts of COVID-19 pandemic on real estate sector

2. PROPERTY IN INDIA AND THE IMPACTS OF COVID-19 PANDEMICS

The journey of property sector in the India is full of ups and downs. Real estate has never been hit hard since the economic slowdown took the global financial crisis back in 2008. The 2008 financial crisis had long roots. The causes of this catastrophe are numerous and diverse. A few examples are a housing market boom, rumor, high-risk mortgage lending, their practices, tax laws, etc. Although it all started in the United States, the effect was contagious to the Indian economy, despite being at a different level. In real estate, the global economic recession caused a significant drop in demand for Indian real estate. The recession has compelled real estate investors to scale back their expansion plans. Ongoing projects have been impacted due to a lack of capital both from the banks and buyers (Francke & Korevaar, 2021). From the 2008 crisis until 2015, there was a search for buyers within the real estate sector. Many builders were unable to meet expectations in 2015, resulting in a drop in property transactions.

However, in 2015, there was a rise in demand due to the government scheme “Housing for all by 2022", aiming at providing affordable housing for the urban poor by 2022. Nevertheless, demonetization in 2016 was received with a lot of panics, pushing the demand downward to 40% again. The effect varied depending on location, but there was a progressive increase, particularly within the affordable housing category. RERA, which will increase investment in the housing market and improve transparency for purchasers, would further reduce demand (NDTV, 2020). The adoption of a new tax system of GST to cut multiple taxes increased the profit margin for developers. However, it has also increased the cost of construction materials and decreased the demand with the increased cost of construction. While the real sector remained struggling to grow, the COVID-19 pandemic hit. The pandemic once again gave momentum toward the downfall in the second quarter (Q2) of 2020. Luckily, with the slogan given by the Prime Minister Mr. Narendra Modi “Stay home, stay safe,” people have realized the importance of home and created a demand again in the H2 2020, while the lockdown was relaxed. The second wave hit the worst falling demand again, but the residential market has proved to be robust in the first half (H1) of 2021 and has coped up more than its pre-COVID after the relaxation in the lockdown of the second wave (Knight Frank, 2020c).

The year 2020 showed the reflections of both disturbances associated with the COVID-19 pandemic in H1 2020 and recovery in H2 2020. In recent years, many technologies have been developed to help businesses improve their resilience, sustain stability, and assure business and real estate sustainability. The collaborative path through the COVID-19 pandemic was characterized by the realization that corporate operations would never be the same again. The residential market was healthy during H1 2021 despite being impacted so severely during the pandemic. Meanwhile, commercial real estate will continue to be in high demand due to issues such as the psychological influence on employees, data security, and measuring productivity (Knight Frank, 2020a). The subsections below discussed about each the growth of property sector and how the pandemic impacted it.

2.1. Residential Sector

COVID is most likely to disturb the expected growth momentum of residential sales in the affordable and non-affordable housing segment in 2020. Developers were already facing the problems of liquidity crises and low demand with the introduction of government reforms. It then got worse when the COVID-19 hit since it affected the new project launches and completion of ongoing projects (Uma & Gujar, 2020).

The pandemic has made people realize the importance of homeownership. As human mobility was restricted and people stayed indoors for 15 months, the perceived value of one's home ultimately pushed the sales. The government initiated several supportive measures, such as a reduction in repo rates, low mortgage rates, and stamp duty reduction in some cities like Maharashtra and Karnataka, along with incentives. These efforts aimed to support the consumers whose primary challenge was to pay the Equated Monthly Instalment (EMI) during the lockdown (Uma & Gujar, 2020). These are the primary drivers for the increase in sales during Q3 2020, which saw a recovery of 84% quarterly (CBRE Research, 2021a). Per Knight Frank's report, the affordability matrix has improved a lot, which has also pushed the market along with the government and central bank's encouragement (Knight Frank, 2020b). For real estate, the government has raised the threshold limit of the Insolvency and Bankruptcy Code in 2016 (IBC). The government has assured the developers that deadlines will be extended under the Force Majeure provision of RERA (Uma & Gujar, 2020).

Table 1 Affordability Index (EMI to Income ratio)
Source: Knight Frank (2020b)

City	2010	2015	2020
Mumbai	93%	94%	61%
NCR	53%	51%	38%
Bengaluru	48%	48%	28%
Pune	39%	38%	26%
Chennai	51%	43%	26%
Hyderabad	47%	39%	31%
Kolkata	45%	44%	30%
Ahmedabad	46%	36%	24%

Mid-end (4.5 million to 10 million) and affordable (less than 450 million) segments have continued driving sales in the residential market, which accounts for 80% of total housing sales.

They are expected to dominate sales in coming years as well. Developers are focusing more on completing projects such as ready-to-move-in flats and smarter and eco-friendly homes as they are reaping the benefits of pent-up demand and festive demand (CBRE Research, 2021a).

2.2. Commercial Sector

2.2.1. Office Segment

The COVID pandemic has moved the commercial sector upside down, particularly the office segment. Traditional office working systems have now transformed to work from home or remote office systems because of the lockdown imposed. COVID has induced the system of WFH and forced the company to make arrangements for the same. However, this system has its pros and cons. People have achieved better flexibility and enjoyed a better time with their families. However, it also has several concerns, such as productivity, lack of adequate home infrastructure, mental and physical health issues, disconnection with corporate culture, fewer opportunities to learn, and a sense of isolation which specifically is felt by the young and new employees, (Knight Frank, 2021). With things returning to normal, senior business leaders believe that employees should work from the office, offering greater flexibility and choice (CBRE Research, 2021a). However, as per the Knight Frank research only 20% of respondents were convinced that organizational performance and productivity in the employees are increased. 50% of the respondents believed there is no change, while the other 30% believed that productivity and performance have deteriorated slightly (Knight Frank, 2021). The World Economic Forum (WEF) surveyed the working habits of the employees post-pandemic. Similarly, the results showed that 47% of employees working in the office regularly before the pandemic wanted to work remotely for at least a day to 4 days a week. Then, 35% of employees wished to work completely from the office, and the remaining employees enjoy their work from home (World Economic Forum, 2021). This change indicated hybrid work as a new norm (see Figure 3). With this, CBRE expected an increase in office portfolio in the long term and has indicated a limited downside impact on future office demand (CBRE Research, 2021a). The importance of the office has shifted from a place of management to a place of engagement and inspiration, which is more effective in terms of supporting collaboration, the productivity of the team, employee learning and development, and innovation relative to hybrid working (Katsikakis et al., 2020).

Cushman & Wakefield believed that five dynamics, namely, "productivity/output, innovation/creativity, company culture and branding, employee satisfaction/retention, and location and building strategy," will influence the extent to which remote work will affect the office segment in a post-COVID era (Brown et al., 2020).

There are some strategies to shift from a 'traditional' to a 'hybrid' office environment, such as:

1. Portfolio growth and optimization via the right kind of mix of traditional flexible space as well as remote working strategies is the top solution to recalibrate the way we investigate office trends in mere future. Strategies for the workplace involve amenities and services to meet changing employee needs, repositioning the spaces, and enhancing technological tools to transfer the way commercial properties are designed and marketed. The strategies offer flexible spaces and layout changes that evolve to meet the ever-changing occupier requirements (CBRE, 2021). Strategies related to Work from Home (WFH) and workplace flexibility is not a fit for all argument. Offices should take an integrated approach while optimizing workplace options. With a variety of options and the change in working patterns, the workplace will define as a network of different locations and experiences. This broadly depends on the factors such as age, seniority, department, company size, and

geography (Brown et al., 2020). However, this new network will have a substantial impact on our working style, portfolio footprint, and the technology that will be in support of this (Mohanty, 2020).

2. Companies are creating more varied portfolios by establishing satellite offices, shifting to decentralized locations, or implementing a hub-and-spoke strategy for growing workforce agility, enabling them to choose where to work on any given day. Employee productivity, environmental, social, and corporate governance, health, and wellness are likely to be at the forefront for the companies. Emphasis on high staff-to-desk sharing ratios is given. In the past, every office provides one desk for one person. Now, it has been reduced the desk occupancy to accommodate the new norm of social distancing, which has given rise to privacy concerns, floorplate efficiency, and infrastructure issues (CBRE, 2021).

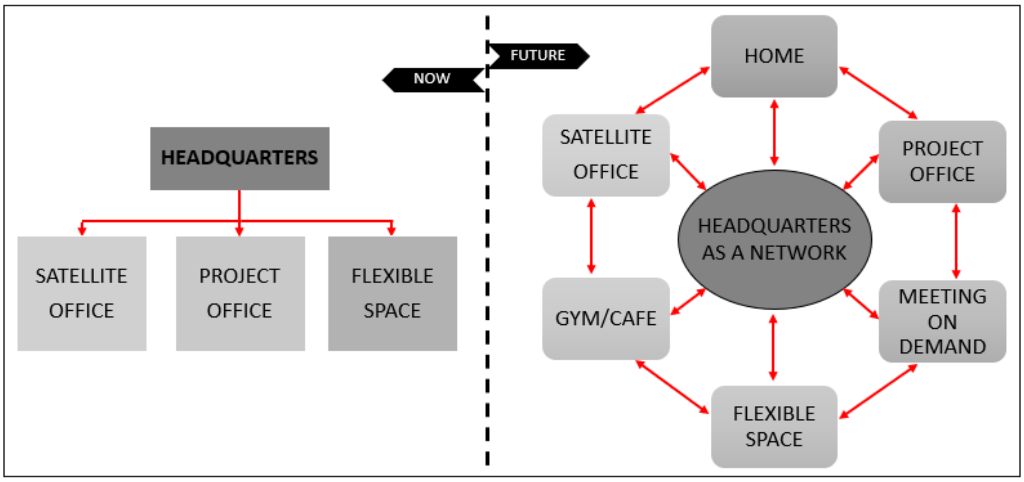

Figure 3 Hybrid Workforce Network
Illustrated by authors, adapted from CBRE Research (2021a)

2.2.2. Retail Segment

Over the past few years, the performance of shopping malls has declined. Vacancy levels have risen, which has created a funding problem for small developers. Nevertheless, the strong pan India developers have a greater reputation in terms of managing project quality, such as DLF, Inorbit, and Phoenix, and have taken the lead in Grade-A mall projects. Grade-A malls have demonstrated higher growth rates compared to stable office assets (Thomas, 2021).

A total of 54 malls were predicted to be launched. However, as the pandemic started hitting, only five malls eventually started their operation in some leading cities of India like Gurugram, Delhi, Bangalore, and Lucknow. This showed how adversely the retail segment has been impacted because of COVID. Fear of the virus spreading during the initial stage of COVID has reduced the footfall of malls. It happened even before the government declared the lockdown. The footfall has been reduced to approximately 55-60% across India. As per the survey by the Retail Association of India (RAI), relaxation in the lockdown did not impact the retail segment as the fear of getting infected is still there (Mishra, 2021).

On the other hand, the COVID-19 pandemic has made people realize that a lot can be accomplished within the comfort of our own homes. E-commerce, for example, played an important role during the pandemic, as it is an acceleration in already existing trends and a sustainable shopping experience for customers. India ranked fourth globally in terms of e-commerce potential in 2020. Though e-commerce was a reason behind the adverse impact on mall performance, it came to the rescue during COVID pandemic. The e-retail is a new norm in the shopping behavior of consumers. Mall owners now focus more on creating a positive consumer experience by enhancing the quality of air, cleanliness, sanitization, and raising awareness. In the next few years, shopping malls are likely to evolve into locations where wholesome, superior consumer experiences are prioritized (see Figure 4). They will no longer only be shopping malls but with fine dining, events, and entertainment centers. Such places will provide enhanced social interaction (Thomas, 2021).

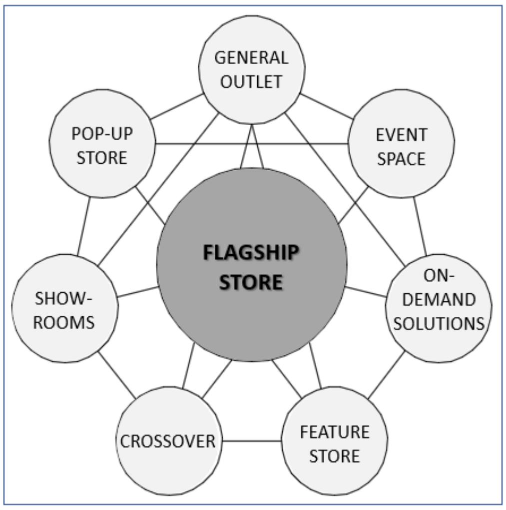

Figure 4 Future of retail stores (CBRE Research, 2021a)

Some strategies can be employed to boost the retail market in the post-COVID times, for example:

1. Emphasis is given to reinventing the experience and realignment of retail formats and configuration as post-COVID. Stores are also expected to serve as platforms to engage consumers and amplify their brand. This will require a thorough re-evaluation of retail properties' location, design, and operation and timely adoption of an omnichannel strategy with physical experience. With rental incomes, we should also consider other sources of revenue, such as increased in-mall advertising, sponsorships, and even live-streaming events (CBRE Research, 2021a).
2. New-age technologies such as AI and AR are to be an integral part of mall owners' business strategies with greater attention to the health and safety of visitors post-COVID. The adoption of digital marketing, targeted promotions, predictive analytics, and in-store automation will provide a competitive edge (Thomas, 2021).

2.2.3. Hospitality Segment

The hospitality sector is the worst-hit sector of all and has seen an all-time low demand. Puneet Chatwal, Chief Executive Officer of Indian Hotels Co. Ltd., said, *"the sector has never experienced such a decline in revenue in the last 100 years"*. Lower wages and employment insecurity make customers more worried about their fundamental requirements. Living a luxurious life and traveling is no longer a priority, which has impacted the hospitality industry most (Kakkar et al., 2020). In addition, movement restrictions over and across the world are another reason for the impact.

The impact is huge and still cannot be predicted on both the supply and demand sides. A challenging situation is faced limiting the demand side (freedom of infection and fear of movement) as well as the supply-side (leisure facilities and closure of accommodation). According to FHRAI, “The Indian hotel industry's total revenue in FY 2019-2020 stood at Rs 182 million. As per our estimates, in FY2020-21, approximately 75% of the industry's revenues got wiped off. That is more than Rs 130 million revenue hit” (Business Standard, 2021). The Indian hospitality segment suffered a huge loss and is desperately looking forward to government support in terms of liquidity and policy support to survive and recover in 2021. As per the JLL survey, 60% of respondents believe that hotels will require one to two years to return to the levels of 2019. Out of the remaining 40%, half of the respondents posit that it will require more than 24 months, while the other half state it will require less than a year (JLL, 2020). Since hotels are such a key element of the hospitality sector, hotel owners think that most of the hotels in their portfolio will require working capital infusions to maintain or restart operations because reserves are nearly depleted (Tyagi, 2021). The government of India has announced a few schemes and developments to boost travel and tourism, such as the development of 17 iconic tourist sites, the Swadesh Darshan scheme, and marketing initiatives (‘Incredible India!’ and ‘Atithi Devo Bhava’). Further, the Ministry of Tourism launched the National Integrated Database of Hospitality Industry (NIDHI) portal, Ministry of Road Transport and Highways launched ‘All India Tourist Vehicles Authorisation and Permit Rules, 2021’. 100% Foreign Direct Investment (FDI) is permitted through the automatic method, and a five-year tax holiday is available for 2 up to 4-star hotels located near UNESCO World Heritage sites (IBEF, 2021).

The hospitality sector is vital to the economy. This sector should be guaranteed so that it recovers and thrives. The hospitality industry was the first to fall and last to rise. However, hospitality players are still confident of recovering the “lost enthusiasm in the second half of 2021” and are aiming at “revenge travel” once the health problem is under control. If this condition goes as planned, the industry will be able to recover. Key business cities and destinations in proximity to major cities with 5-6 hours of travel time will be the fast-recovering market as per 53% and 40% of the respondents, respectively, according to the JLL survey (JLL, 2020). This is also gaining momentum as we enter 2021, with vaccines building up confidence toward travel (Tyagi, 2021).

3. METHODS

This study performed analysis to both literature sources and real data from the real estate sector, which is considered the foundation for generalization of the current situation. However, considering the current scenario of COVID-19 where this study was conducted, data evaluation and collection wer primarily done through secondary sources, which included mainstream news and media, articles, reports, research papers, blogs of various companies such as Cushman and Wakefield, Knight Frank, CBRE, Oyo, etc.

Some of the keywords used to locate the literature sources during the research including the words of pandemics, COVID-19, real estate, residential sector, commercial sector, hospitality sector, and retail sector. Sources were selected and prioritized based on various criteria, such as the relevance of the topic in the Indian context, emerging trends, and variations in the data, recent surveys, and the current research. For research papers that were referred to, apart from the title and abstract, data collection and data analysis were considered to find H2 2007 to H1 2021. Sources were also shortlisted from the reference list of relevant articles, reports, and research papers. The collected data was further analyzed based on the thematic analysis using the NVivo software. Thematic analysis is a descriptive and explanatory method that uses themes and patterns coming up repeatedly to analyze qualitative data. It helps organize and examine the data to obtain the results and draw conclusions (Guest et al., 2014).

The thematic analysis involved several steps, which cover:

1. Getting familiar with the data; The first step is to become acquainted with the data by reading it numerous times, which aids in structuring and identifying relevant information.
2. Grouping of data and searching for themes; This step includes categorizing the data into cohesive categories while simultaneously searching for distinct themes.
3. Interpretation and writing results; The data is turned into concrete sets of findings. In this step, the final analysis and conclusion for the topic are given.

NVivo is the software that organizes, stores, and analyzes data, which helps conduct a deeper qualitative data analysis and provides well-articulated and defensible conclusions. It is commonly applied in the thematic analysis through several processes, such as:

1. Importing; NVivo allows the data to be imported from various sources with different formats. This helped in centralizing the data on a single platform.
2. Organizing; The data is coded in different themes, which helps to identify the relevant data quickly.
3. Exploring; It also explores the coded data to visualize better using word frequency charts and word clouds. Hence, the data is better analyzed.
4. Connecting the dots; All these steps helped draw better conclusions.

4. DATA COLLECTION

4.1. Data on the Residential Sector

The residential sales in H1 2020 dropped to approximately 55,200 units from approximately 110,500 units in H1 2019. Further, the launch dropped around 42% in the same time frame (Knight Frank, 2020b). The unsold inventory was worth Rs. 3700000 million and stood at 455,351 units in Q2 2020, which was more than 442,228 units in Q1 2020 (Rao & Mamillapaui, 2020). The sales volume observed a 16% average quarterly growth in Q2 2020 than Q2 2019. However, a steep recovery of 54% was recorded in Q3 2020. Q4 2020 was even 5% higher than the average quarterly sales in Q4 2019. It has surpassed the pre-COVID level of residential demand. The launches volume experienced a similar growth during Q4 2020 compared with the average quarterly growth of 2019. Tier 1 cities grew 185% YoY in Q2 2021 and by 67% YoY in H1 2021 (Knight Frank, 2020c). Q1 2021 even witnessed the highest sales and launches as compared to the last few years, which stood at approximately 72,500 and 77,000 units, respectively. However, after the second wave, Q2 2021 saw a sequential drop of 62% and 43% in sales and launches. The value consisted of approximately 28,000 and 27,500 units, respectively. Vaccines sparked the market transaction in H2 2020, which carried this momentum to Q1 2021. Sales and volume in H1 2021 grew over 5% and 20%, respectively, as compared to H2 2020 (Knight Frank, 2020c).

Table 2: Quarterly sales and launches of 2020 (Knight Frank, 2020b)

	Q1 2020	**Q2 2020**	**Q3 2020**	**Q4 2020**
Sales (Housing units)	49,905	9,632	33,403	61,593
Sales as % of 2019 Quarterly average	81%	16%	54%	100%
Launches (Housing units)	54,905	5,584	31,106	55,033
Sales as % of 2019 Quarterly average	98%	10%	56%	99%

4.2. Commercial Sector

4.2.1. Office Segment

The year 2019 recorded the highest transaction of office spaces with a decade high of 27% and has exceeded 5.6 mn sq. ft. during the year. However, according to the Cushman and Wakefield report, the net leasing activity of office spaces has declined from 7 mn sq. ft. in Q1 2020, which was 30% higher than in 2019, to a 6-year low of 3.5 mn sq. ft. in Q1 2021 (Katsikakis et al., 2020)◘. In Q4 2020, this number increased to 9.9 mn sq. ft. with QoQ growth of 271% and has reached 115% of the pre-COVID level (Knight Frank, 2020b).

Table 3: Quarterly transactions and new completions of 2020 (Knight Frank, 2020b)

	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Transactions mn sq. m. (mn sq. ft.)	1.4 (14.6)	0.2 (2.6)	0.4 (4.7)	1.6 (17.5)
Transactions as % of 2019 Quarterly average	96%	17%	31%	115%
New completions mn sq. m. (mn sq. ft.)	1.2 (13.2)	0.5 (5.2)	0.7 (7.1)	0.9 (10)
New completions as % of 2019 Quarterly average	86%	34%	47%	65%

In 2020, office completions dropped 42% YoY. Conversely, the new office supply in H1 2021 was 25.11 mn sq. ft. It increased 75% YoY across the major cities. The significant increase was especially caused by gradual unlocking and improved economic conditions so that various corporate occupiers were planning to renew their expansion projects with offices and business activities in the near future (Cushman & Wakefield, 2020).

As argued earlier, offices have shifted from traditional to hybrid mode. This shift has increased the demand for flexible office space in India. The value was 36 mn sq. ft. in 2020, and it is anticipated to expand by approximately 10-15 % by 2023, as per CBRE. The future of flexible office spaces includes 30%, while 60% is traditional occupancy, and 10% remains vacant. In the pre-COVID time, flexible office spaces were only 15%, while the other 80% was traditional occupancy. During that time, only 5% were vacant (World Economic Forum, 2021). Businesses also intend to access various work models to maintain flexibility at workstations and increase corporate profitability (CBRE, 2021).

4.2.2. Retail Segment

Malls have completely shut down during the lockdown. Mall leasing and new mall supply declined by almost 60%. In addition, the vacancy rate has also increased. Average rentals declined in the range of 5-6% across the tier 1 cities. The country, however, has shown signs of recovery in Q3 2020 with YoY growth of 1.6% (IBEF, 2021). Recoveries in terms of hypermarket, focusing on asset-light models, emerging e-tail, virtual change rooms and ease of technology, omnichannel strategy, contactless payments, flexible retail space models, and store size optimization were expected (Mohanty, 2020). Grade-A malls have shown higher growth rates than stable office asset molds. Mall density in India is lower but is likely to provide an immense scope of growth in the next few years, especially in tier 2 and tier 3 cities when the COVID has ended (Thomas, 2021). Online retail is forecasted to increase to US $84 by 2022 and US $200 by 2026 from US $73 in 2021 (IBEF, 2021).

4.3.3. Hospitality segment

India is a massive market for travel and tourism. It has been acknowledged as a renowned tourism attraction for both local and foreign travelers. Unfortunately, India has witnessed a drop of over 25-30% in international visitors, as per the ministry of civil aviation, and a drop of over 30% in domestic travel. The decline of over 40% is seen in summer bookings to exotic places like Rajasthan and hills, with the highest impact on Leh, Guwahati, Coimbatore, and Amritsar. According to the WTTC's Economic Impact 2019 report, India's contribution increased by more than 4.9% in this sector, placing it third after China and the Philippines. Moreover, the number of jobs created during 2014-2019 also witnessed the strongest growth (IBEF, 2021). Since the pandemic broke out, jobs have become an issue as the situation has not improved till May 2020 (Praveenkumar, 2020). A shift in behavior after COVID would last for another 13 to 24 months, resulting in fewer hotel stays (Kakkar et al., 2020). Luxury hotel operators anticipated a delayed ramp-up by anticipating their portfolio to take more than two years to achieve 2019 overall performance. Travel will not return to pre-pandemic levels until 2023. Business travel is also predicted to shorten the post-pandemic period since companies would cut back on trip spending (Praveenkumar, 2020).

Up to FY 2019, Indian hotels have experienced a continuous growth momentum over the past few years. However, the hotel occupancy rate has fallen to 33.8% during FY 2021 and 65.4% during FY 2020 from 65.7% during FY 2019. To illustrate the havoc, the TATA group conglomerate's subsidiary, Indian Hotels Company Limited (IHCL), incurred a drop of 86% in its revenue from Rs 1,440 million in Q2 2020 to Rs 10,200 million in Q2 2019 due to COVID-19 (Kakkar et al., 2020).

Oyo, the unicorn of the Hotel industry in India, during FY19, booked total revenue of US $ 951 million. The value was 4.5 times higher than in 2018. The value was also marked by an increase in gross margin of 4.1% from 10.9% in FY18 to 14.7% in FY19 (Gupta, 2020). This number saw a downfall during the first wave, and close tracking was done for supply and demand equilibrium. In June and December 2020, Oyo reached 30% and 40% of pre-COVID levels, respectively (Moneycontrol, 2020). This was a small but significant green shot for Oyo hotels. "In India, if all goes well, in a couple of weeks, our numbers will be back to pre-wave two and then growing from there," says OYO founder and CEO Ritesh Agrawal (BusinessLine, 2021).

5. RESULTS AND DISCUSSION

According to the literature and data, the residential segment has seen rapid growth despite the major obstructions. Government support and initiative, along with technology adaptation, have helped the segment recover and surpass the pre-COVID condition. People and organizations must be prepared for potential disruptions by breakthrough technology. In this context, intelligent buildings and systems that enable less contact in houses and buildings are likely to become increasingly widespread. People are renovating and upgrading their homes due to extended home-work choices and have increased the demand for larger units to accommodate a home office and digitally enabled homes.

Furthermore, commercial real estate is undergoing a structural shift as dramatic as it has seen in more than 200 years of history. The blend of a severe recession as well as a global outbreak has forced employees and businesses to reassess how frequently they will use their workplaces, how they will utilize the office differently in the future, and how much office space they will need.

"The impact of COVID-19 in the form of the shutdown of retail outlets and malls as also entertainment and fitness centers has put commercial real estate deals on a wait-and-watch mode," says the national president of NAREDCO, founder and MD of Hiranandani Group, Niranjan Hiranandani (Mishra, 2021). The performance of shopping malls has declined, and vacancy levels have risen, which creates funding challenges for mall developers. Major players in this segment, like DLF and Pheonix, are taking the lead in grade-A mall projects as they attract more crowds with premium brands and other facilities. Artificial Intelligence is augmented reality with more safety, to be an integral part of design post-COVID. Post-COVIDafter economic stabilization, this industry will make a strong comeback and deliver exceptional returns to investors (Thomas, 2021).

On the other hand, the hospitality segment still has a long way to go. As the hotel industry restarts operations, now are the time to adapt, revamp, and apply new methods and ideas to assist the sector in recovering faster and redefine hospitality for the future. Consumer behavior will be drastically altered in the post-COVID-19 world. The consumer would expect less in-person connection but the greatest hospitality and sanitary standards available. The sector should focus on increasing visitor and staff trust. To digitally interact and engage with guests, assessing them on different actions and guest care activities, as well as employee wellness programs, will assist develop the required assurance, as well as brand loyalty and value.

6. CONCLUSION

Real estate has certainly survived and eventually flourished as an asset class in the post-COVIDera, perhaps in a new form. There will certainly be major changes in the home, offices, and retail areas. The key themes of this change are decentralization, redistribution, and restructuring. The COVID-19 pandemic is eye-opening for everyone. Things can change quickly, and only those that innovate will be able to survive in such challenging times. Innovation and technology are critical to recovery, and those who refuse to adapt to changing circumstances will vanish.

The COVID-19 pandemic has significantly interrupted construction, made it impossible for many people to afford shelter, and has badly harmed the housing sector. Governments have responded by enacting a lot of policies to safeguard builders and lenders. The residential segment has proved its resilience, and with a few government initiatives and support, it has come back on track. The offices and retail segment in the commercial sector have geared up and almost reached their pre-COVID level. Innovations in both segments have accelerated growth and have given a newer perspective toward the future. Also, existing trends of hybrid working and online grocery services have accelerated due to the pandemic in the office and retail segments, respectively.

Hotels within the hospitality segment will need more attention to reach their pre-COVID level. This pandemic proved to be a turning point for the entire segment. Even when some re-openings take effect and vaccinations are distributed, “normal” everyday living remains a long way off for many. It must be seen which new methods of working and living customers grasp completely and which eventually become a memory of the outbreak.

REFERENCES

Acharjee, S. (2020, March). Pandemics of the past. *India Today Insight News*. https://www.indiatoday.in/india-today-insight/story/coronavirus-pandemics-of-the-past-1656730-2020-03-18

Bhoj, J. (2020). Impact of COVID-19 on real estate industry with reference to India. *International Journal of Management and Humanities*, *4*(9), 158–161. https://doi.org/10.35940/ijmh.i0900.054920

Brown, D., Thorpe, K., Shepherd, J., Phipps, A., & Zatta, S. (2020). *Workplace Ecosystems of the Future Introduction*.

Business Standard. (2021). Hotel industry says it lost Rs 1.3 trillion revenue in FY21, seeks help. *Business Standard News*. https://www.business-standard.com/article/economy-policy/fhrai-says-indian-hotel-industry-revenue-hit-in-fy-21-seek-govt-support-121051600214_1.html

BusinessLine. (2021). Oyo sees recovery in India picking pace on easing of travel curbs. *The Hindu BusinessLine*. https://www.thehindubusinessline.com/companies/oyo-sees-recovery-in-india-picking-pace-on-easing-of-travel-curbs/article35205703.ece

CBRE. (2021). Future of office survey (Issue July). https://apacresearch.cbre.com/research-and-reports/Asia-Pacific-Major-Report---Future-of-Office-Survey-July-2021

CBRE Research. (2021a). *Indian real estate in 2021: reboot reimagine regain* (Issue January). https://www.cbre.co.in/en/research-reports/India-report_Indian-Real-Estate-in-2021---Reboot--Reimagine--Regain_Jan-2021

CBRE Research. (2021b). *REAL ESTATE MARKET OUTLOOK - Resetting in the New Normal*.

Chauhan, A. S. (2021). *Impact of coronavirus (Omicron) on Indian real estate*.

Cushman & Wakefield. (2020). *How the pandemic is changing office space | Singapore | Cushman & Wakefield*.

Francke, M., & Korevaar, M. (2021). Housing markets in a pandemic: Evidence from historical outbreaks. *Journal of Urban Economics*, *123*(October 2020), 103333. https://doi.org/10.1016/j.jue.2021.103333

Gupta, A. (2020). *Annual Report Card FY 2019 - Official OYO Blog*.

IBEF. (2021). *Indian Real Estate Industry: Overview, Market Size, Growth, Investments...IBEF*.

IBEF Knowledge Centre. (2021). *Real Estate Sector To Cross Us $1 Trillion By 2030 | IBEF*.

JLL. (2020). *Impact of COVID-19 on the Indian Hospitality Industry* (Issue June).

Kakkar, P., Chhetri, S., & Dambhare, A. (2020). Analysing the impact of Covid-19 on consumer behaviuor towards hotel industri in India. *11th International Conference on Shifting Paradigm In Business Economy And Society: Vision 2050*, *December*, 1–16.

Katsikakis, D., Smith, D. C., Rodriguez, M., & Leinberger, C. (2020). *Purpose of Place: History and Future of the Office*.

Knight Frank. (2020a). *Co-working: the office of the future?*

Knight Frank. (2020b). *India Real Estate Residential and Office - July - December 2020*.

Knight Frank. (2020c). *India Real Estate RESIDENTIAL MARKET - JANUARY - JUNE 2021* (Issue June).

Knight Frank. (2021). *Work from home*.

Mishra, S. (2021). *Impact of Coronavirus Lockdown on Real Estate & Property Price in India*.

Mohanty, A. (2020). *Relevance 2020 | India | Cushman & Wakefield*.

Moneycontrol. (2020). *Oyo Occupancy In India Still At 30% Of Pre-COVID Levels: Report*. https://www.moneycontrol.com/news/business/oyo-occupancy-in-india-still-at-30-of-pre-covid-levels-report-5540481.html

NDTV. (2020). *COVID-19 Impact On India's Real Estate Sector - YouTube*.

Praveenkumar, S. (2020). Impact and Recovering Stratergies for Tourism and Hotel Industry-Post Covid-19 in India. *Dogo Rangsang Research Journal*, *10*(09), 80–86.

Rao, P. H., & Mamillapaui, R. S. (2020). Impact of covid - 19 on real estate sector in india. *Journal of Global Information and Business Strategy*, *12*(1), 58–66. https://doi.org/10.5958/2582-6115.2020.00007.7

Thomas, S. (2021). *Despite near term COVID induced uncertainties, Indian malls are here to stay | India | Cushman & Wakefield*.

Tyagi, A. (2021). *For hospitality and tourism sector, 2021 is all about survival, recovery*.

Uma, K., & Gujar, S. (2020). Impact of Covid-19 Pandemic Crisis on the Real Estate Housing Sector. *Psychology and Education Journal*, *57*(9), 4037–4042. https://doi.org/10.17762/PAE.V57I9.1622

World Economic Forum. (2021). A Framework for the Future of Real Estate. In *World Economic Forum* (Issue April).