

VOLUME 17 | ISSUE 12 | AUGUST 2021

realtyplusmag.com

Realty+

THE VOICE OF REAL ESTATE

₹150

INCREASING VALUE AND PERFORMANCE OF REAL ESTATE

PRADEEP LALA

MD & CEO, EMBASSY SERVICES PVT LTD



TOP HONOURS
FOR THE
WOMEN OF
INDIAN
REALTY

**NOMINATIONS ARE NOW
OPEN!**

FOR MORE INFORMATION, CONTACT:
TRIPTI KEDIA
TRIPTI@EXCHANGE4MEDIA.COM
+91 9820010226

Realty+

₹150

THE VOICE OF REAL ESTATE

Amit Bhagat
ASK PIA

Ritesh Vohra
Investcorp India
Asset Managers
Pvt. Ltd.

Sanjay Dutt
TATA Realty And Infrastructure Limited

Irfan A. Kazi
SWAMIH
Investment
Fund, SBICAP
Ventures Ltd.

Amit Diwan
Hines India

Ramesh Nair
Colliers

REAL ESTATE INVESTMENT OUTLOOK IN \$5 TRILLION ECONOMY

Khushru Jijina
Piramal Capital &
Housing Finance Ltd.

Sharad Mittal
Motilal Oswal Real Estate

Arpit Singh
Xander Investment
Management

Vinod Rohira
Mindspace Business
Parks REIT

Neeraj Bansal
KPMG in India

Vipul Roongta
HDFC Capital Advisors Ltd

Amit Goenka
Nisus Finance
Services

Arshdeep Singh Sethi
RMZ Corp

Snehdeep Aggarwal
Bhartiya Group



We are growing our network

Demand for flexible workspace is growing exponentially. We are looking for partners with locations in towns, cities, suburbs and transport hubs across the country. Whether you have a whole building, a single floor, a retail unit or an empty shop, we're interested in partnering with you to capitalise on this surge in demand for flexible workspace.

Contact us today – let's meet this demand together

Global.partner@iwgplc.com

iwgplc.com/PartnerWithUs/landlords

81%

of companies anticipate remote working being the new norm

PWC, Future of Remote Working

PANORAMA

by ANNURAG BATRA

Editor-in-Chief

EMBRACE THE FUTURE WITH ALL OPTIMISM

More than a year of pandemic crisis has caused an unparalleled economic disruption. In the current financial year the GDP is expected to grow back after registering a growth of 8.3% but, in terms of overall economic production, India still has lost two full years of growth. RBI has held its repo rate at a record low and government has announced four-year National Monetization Pipeline worth an estimated Rs 6 lakh crore to unlock value in brownfield projects by engaging the private sector. How these initiatives will unfold and offer stimulus to the Indian economy is yet to be seen. The realty sector though was in upbeat mood with sales in Q1 2021 recovering to more than 90% of the volumes witnessed pre-COVID across the top seven cities.

August is the beginning of festive season in India and realty players are hopeful of better times ahead. It is also the month when Realty+ marks its 17 years of existence. Incepted on August 27, 2004, the publication has been the voice of Indian real estate connecting the sector's professionals all across the country.

Realty+ has continued to be the bridge among all the stakeholders of the real estate sector through the magazine and the events. I take this opportunity to thank all our partners, team members and most importantly

the members of the real estate from across India that have been part of this journey with us.

Not the ones to sit on our laurels, we continue to aim higher and soon will bring the Realty+ Women Icon Awards that recognizes the contribution of women in Indian real estate and will felicitate them for their exemplary works in various segments. Also coming up is the 13th Realty+ Conclave & Excellence Awards West 2021 based on the theme of 'Resilience and Resurgence'. It will comprise knowledge sessions and virtual awards felicitating the top performers in West zone real estate.

As always, our event series are designed to inspire and engage audience from across the country, sectors and industries and set the benchmarks for an unbiased and fruitful conversations among the leaders of the real estate, building and construction sector. We have always risen to the challenges, found a ray of hope in the darkest of times and the team has stood together to find opportunities to succeed.

Wishing everyone a happy, healthy and prosperous festive season.



PUBLISHER & EDITOR-IN-CHIEF

Annurag Batra

DIRECTOR

Nawal Ahuja

PUBLISHER & BUSINESS HEAD

Tripti Kedia

tripti@exchange4media.com

+91 9820010226

EDITORIAL

Sapna Srivastava | Editor

sapna.srivastava@exchange4media.com

+ 91 9769993655

Nadine D'Souza | Editorial Consultant

nadine.dsouza@exchange4media.com

+91 9819175740

Dolly Singh | Correspondent

dolly.singh@exchange4media.com

+91 98696 80045

ART & DESIGN

Shamsad Shaikh | Senior Art Director**Goraksh Kokate | Senior Designer**

PHOTOGRAPHER

Suresh Gola | Delhi

ADVERTISING & SALES

Ganesh Gurav | Sr. Manager - Sales

ganesh.gurav@exchange4media.com

+91 9930960403

CIRCULATION /SUBSCRIPTION

Almas Khan | Manager – Events & Marketing

almas.khan@exchange4media.com

+91 9773257054

ADVISORY BOARD

Anuj Puri

Chairman, Anarock Property Consultants Pvt. Ltd.

Laxmi Goel

Chairman, Suncity Projects

Ajoy Kapoor

CEO, Saffron Real Estate Management

Dr P. S. Rana

Ex-CMD, HUDCO & Independent Director, Ansal API

Praveen Nigam

CEO, Amplus Consulting

Dr. Amit Kapoor

Institute for Competitiveness

Jaideep Gandhi

Branding & Advertising Expert

Delhi Office

Shop No: 32-33, South Ext. Part-1, Om Vihar,

Uttam Nagar (West), New Delhi-59, Phone: 011-25334822

Noida Office

B-20, Sector-57, Noida-201301

Phone: 0120-4007700; Fax: 0120 4007799

Mumbai Office

301, Kakad Bhavan, 3rd Floor, 11th Street, Opp. Gaiety

Galaxy Cinema, Bandra (W), Mumbai 400050

Phone: 022 6620 6000, Fax: 022 6620 6099

Bengaluru Office

18, 3rd B Cross, Domlur II, Stage,

Bangalore 560071, Phone: 080-41119469

Printed at: All Time Offset Printers,

F-406, Sector-63, NOIDA, Uttar Pradesh - 201307

Printed, Published and Owned by

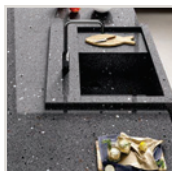
Annurag Batra at B-20, Sector-57, NOIDA-201301, UP

An exchange4media group publication

Ultra-modern kitchen tops for an urban kitchen



APPLICATION POSSIBILITIES



KITCHEN TOP

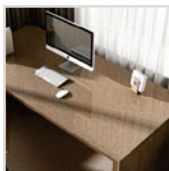
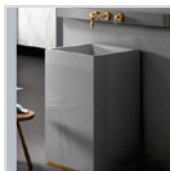


TABLE TOP



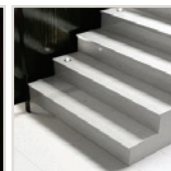
VANITY TABLE



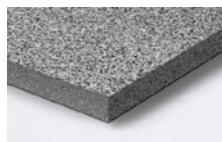
FLOOR



LIFT AREA FRAME



STEP & RISER



15MM
THICK
NESS

**FULLBODY
VITRIFIED
SLAB**
800x2400mm

Kajaria
VITRONITE

FROM THE EDITOR'S DESK



Let me start with sharing a joyous occasion of celebrating 17th anniversary of Realty+ this month. August 27 holds a special meaning for us, as it was on this day in 2004, the publication was started by the exchange4 media Group. Since then, it has come a long way from being just a monthly magazine to creating special supplementary journals, curating offline and online events for all domains of the industry and conducting customized events across all segments of the realty sector.

Indeed, there have been some challenging times such as the recession of 2009 and the pandemic of 2020. But, kudos to the leadership and the team, that we not only braved the tough times but also found opportunities amidst crisis. From launching of Realty+ Conclave & Awards at the peak of the recession to innovating online medium during the pandemic, Realty+ has continued to serve the realty industry, its stakeholders and add value to the sector.

So let me express our sincere appreciation to all the members of the real estate fraternity from across the country for supporting and encouraging us all along the way.

Cheers to more bright futures ahead!

Sapna Srivastava

sapna.srivastava@exchange4media.com

You can access the web edition of Realty+ at www.realtyplusmag.com and also subscribe for the Daily Newsletter. You can send your letter to us at realtyplus@exchange4media.com mentioning the sections name in the subject line.

READER'S CONNECT

IN BOX



My association with Realty+ since KPMG days has been very enriching and meaningful. Realty+ is one of the finest organisation that acts as a very powerful platform for all stakeholders in the real estate and construction sector. It not only provides deep insights into various facets of real estate through their multiple media but also facilitates dissemination of views of industry leaders. Realty+ encourages and empowers new comers, start-ups, women entrepreneurs to network and express their ideas, innovations and achievements. Innovative Awards given by Realty+ encourages various players to contribute for the betterment of the sector. In fact, Realty+ played a pivotal role during COVID times by fostering positivity, new vigour and opportunities ahead of pandemic. I wish many more successful years for Realty+.

Jayesh Kariya

Managing Partner- Alliances
Integrow Asset Management Pvt Ltd

A real-time set of down to foundation experiences are frequently covered in Realty+ which is indeed so relevant, current, critical and valuable to learn for its various readers in this segment. Keep up the great work and contribution Realty+.

Dr. Adil Malia

CEO
The FiRM

With numerous events and media houses across, Realty+ is one of the few mediums which showcases not only the concentrated creative geniuses in metro cities, but from the corners of our vast country. This has encouraged and showcased the hidden talent, which we have been missing for long.

Ar. Manish Dikshit

Founding Partner
Aum Architects

A LIFESTYLE AS RARE AS ARTIST'S MASTERPIECE



Welcome to _____
24K STARGAZE
BY KOLTE-PATIL

24K Stargaze is a rare masterpiece crafted with the artist's imagination. Every corner of this classic marvel is designed with finest fitments to create an experience that is beyond exquisite. It is the canvas of your unique tastes and affluent lifestyle choices, where luxury is painted in its purest form. 24K by Kolte-Patil is an exclusive segment created to offer a super luxury experience.

Superlative 4.5, 4 & 3 RLK Residences at Bavdhan from ₹1.47 Cr*

Site Address: 24K Stargaze Sales Office, Next to Marigold Banquets,
Opp. Ambrosia Resort, Paud Road, Bavdhan, Pune - 411 021.

1800-266-6654

CONT

IN FOCUS

12

FINANCE

ALTERNATIVE REAL ESTATE DEBT – RISKS & PROSPECTS

28

BRAND SYNC

ONE SURFACE – MANY POSSIBILITIES

B G VYAS COO, KAJARIA CERAMICS
LTD (PVT DIVISION)

20

EMERGING TRENDS IN REAL ESTATE

AADARSH SHAH, EXECUTIVE
DIRECTOR, UB HERITAGE GROUP

34

Q&A

FORTUNES OF THE REALTY SECTOR HAVE SEEN BUOYANCY

AMIT GOENKA, MANAGING DIRECTOR &
CEO AT NISUS FINANCE (NIFCO)

26

CAUTIOUSLY OPTIMISTIC OUTLOOK FOR REAL ESTATE

KUNAL CHHEDA, CHIEF OPERATING
OFFICER, THE WADHWA GROUP

27

I LOVE THE PERKS & CHALLENGES OF REAL ESTATE

RUDRA BAROT, CEO, R-STONE DESIGN AND
BUILD PVT LTD.

42

16

COVER STORY

REAL ESTATE INVESTMENT OUTLOOK IN \$5 TRILLION ECONOMY

50

PROP-TECH INVESTOR READY: TECH AREAS ATTRACTING FUNDING

EVENTS

AUGUST 2021



FEATURES

**RESIDENTIAL REALTY RECOVERY
& INVESTMENT OPPORTUNITIES**.....36

**COMMERCIAL REALTY
INVESTING: TRENDS & INSIGHTS**.....44

**INVESTORS BETTING BIG ON
WAREHOUSING**.....56

EVENT

**FUTURE OF CONNECTED
LIGHTING SYSTEM**
DR. KARSTEN EHLING, FOUNDING PARTNER
& MD, LICHTVISION GERMANY.....68

**DESIGNS FOR THE PROTO-CITY:
DISAGGREGATION OF THE
FUTURE**
MADHAV RAMAN, PRINCIPAL & CO-
FOUNDER, ANAGRAM ARCHITECTS.....70

**LIGHTING FOR SMART
BUILDINGS - ALIGNING
WELLNESS & SUSTAINABILITY**
PRAVEEN THAMPI, CREATIVE DIRECTOR,
THE MINISTRY OF LIGHT HAVELLS.....72

PROJECT WATCH.....74

62



DRAWING BOARD
**INFLUENCES OF TECHNOLOGY ON
ARCHITECTURE**

NEWS

IN FOCUS

INDIA'S WOBBLING HOUSING MARKET TO REGAIN ITS FEET NEXT YEAR

India's wobbly housing market will find its footing next year, boosted by a recovery from the pandemic and easy monetary policy, according to a Reuters poll. The poll predicted house prices would grow on average 2.5% nationwide this year, an upgrade from next to nothing, 0.75%, expected in a survey three months ago.

If the latest forecasts for Indian house price rises are realised, it could

Average Indian house prices are forecasted to rise 4.5% next year and 5.5% in 2023, outstripping consumer price inflation by then, partly because raw material costs for builders are expected to keep rising.

put pressure on home buyers at a time when many are struggling to find jobs given the economy has still not recovered to its pre-COVID-19 level. Analysts were split, however, on what would happen to affordability over the coming years. A spread in new coronavirus variants, a slowdown in economic activity and higher interest rates were the biggest downside risks to the outlook, according to respondents in the poll.

GOVERNMENT TO RAISE RS 6 TRILLION BY LEASING INFRA ASSETS

The government will raise Rs 88,000 crore this year by leasing infrastructure assets of central government ministries and state-run companies under a Rs 6 trillion National Monetization Pipeline (NMP). The funds will then be used to build new infrastructure assets, helping boost economic growth in Asia's third-largest economy. Annual targets under the four-year pipeline have been set at Rs 1.62 trillion for FY23, Rs 1.79 trillion for FY24 and Rs 1.67 trillion in the following year. The top five sectors by value under the government's asset monetization programme are roads (27%), railways (25%), power (15%),

oil and gas pipelines (8%) and telecom (6%).

Among projects the government plans to lease are 26,700km of roads, 90 passenger trains, 400 railway stations, 28,608 circuit km transmission lines, 286,000km of Bharatnet fibre network and 14,917 towers owned by state-run Bharat Sanchar Nigam Ltd and Mahanagar Telecom Nigam Ltd.

Other core infrastructure assets that will be leased under NMP include airports in smaller cities, dedicated freight corridor assets, warehousing assets of state-run companies such as Central Warehousing Corp. and NAFED, and sports stadiums.

The government plans to create a virtuous cycle by utilizing the resources raised through monetizing existing assets to create new greenfield infrastructure assets and further monetizing these newly created assets.

The monetization of core assets under NMP is expected to be carried out through public-private partnership models such as operate-maintain-transfer, toll-operate-transfer etc., as well as structured financing vehicles such as infrastructure investment trusts (InvITs) and real estate investment trusts (Reits).

NEWS

IN FOCUS

TOWNSHIPS FOR SENIOR CITIZENS ON CARDS IN HARYANA

“Mini townships” catering to every need of the senior citizens, including medical facilities, are on the anvil in Haryana, with the BJP-JJP government unveiling a policy aimed at developing exclusive retirement housing projects.

Under the policy, the developer would have to mandatorily provide medical services, including 24x7 on-site ambulance, emergency medical room, regular medical check-up, pharmacy tie-up with doorstep medicine delivery and wheelchair facility. Yoga, physiotherapy and exercise centre will also have to be provided within the residential complex.

To take care of the security

concerns, alarm system in all rooms and common areas, emergency alarm and light control, free intercom facility, CCTVs and deployment of the properly-trained security personnel would be ensured. Besides, the basic design of the residential complex, including corridors, lifts and ramps, bathrooms, bedrooms, open areas and parks, would be senior citizen-friendly. While all facilities would be provided to the senior citizens under one residential complex, transport and mobility assistance, including pick-up and drop facility for nearby locations and e-carts for internal movement, will be provided by the developer/service providers.

THE NEW POLICY WAS THE INITIATIVE OF CHIEF MINISTER MANOHAR LAL KHATTAR, WHO WANTED REGULATED DEVELOPMENT OF RETIREMENT HOUSING PROJECTS FOR SENIOR CITIZENS WILLING TO PAY FOR SUCH ACCOMMODATION AND FACILITIES.



TWEETTALK

Airbnb @Airbnb

Airbnb will begin housing 20,000 Afghan refugees globally for free.

President of India @rashtrapatibhvn

Unprecedented win by Neeraj Chopra! Your javelin gold breaks barriers and creates history. Your feat will inspire our youth. India is elated!

India Ratings @IndiaRatings

India Ratings and Research expects the aggregate fiscal deficit of Indian states to moderate to 4.1% of GDP (for FY22) from earlier forecast of 4.3%.

NAREDCO National @NaredcoNational

Assam has enacted a tenancy act to establish a rent authority to regulate renting of premises, which will be market-driven.

ICRA @ICRALimited

Renewable energy sector outlook supported by strong project pipeline, superior tariff competitiveness and continued policy support.

Masdar @Masdar

Masdar is developing & deploying commercial-scale renewable energy projects, leading sustainable urban development & advancing clean-tech innovation worldwide.

NEWS

IN FOCUS

NBCC RECEIVES RS 100 CR FROM SBICAP FOR AMRAPALI PROJECTS

SBICAP Ventures has transferred the first tranche of disbursement worth around Rs 100 crore for the six projects by the erstwhile Amrapali Group located in Noida and Greater Noida. SBICap signed a MoU with the court receiver, appointed by the Supreme Court to monitor stuck

“We will disburse as per the pace of construction. We have committed Rs 650 crore and we will disburse as required and as construction expenditure is incurred in the project,” said Irfan A Kazi, Chief Investment Officer of the SWAMIH Investment Fund

Amrapali projects, for funding Rs 650 crore for six projects in Noida and Greater Noida.

The UCO Bank, Bank of Baroda, and Bank of India have agreed to form a consortium to provide financial assistance to stuck Amrapali projects post the meeting held with 10 banks and their counsels.

INDIA'S FIRST SMOG TOWER IN CONNAUGHT DELHI

Chief Minister Arvind Kejriwal inaugurated the “country’s first smog tower” at Connaught Place in Delhi. Many such structures can be installed in the national capital if this pilot project yields results, he said.

A Delhi government statement said, “The 24-metre-high smog tower at Connaught Place, one of the biggest commercial centres in the capital, is based on a downdraft air-flow model. Its 40 huge fans will suck air from the top of a special type of canopy structure and release clean air filtered through novel geometry filters. Since it is a new technology, it is being implemented on an experimental basis. Tata Projects Limited (TPL) built the smog tower with technical support from IIT-Bombay and IIT-Delhi, which will analyse its data. NBCC India Ltd is the project management consultant.”



The smog tower has 40 fans and 5,000 filters developed by experts at the University of Minnesota, which also helped design a 100-metre-high smog tower in Xian, China.

NEWS IN FOCUS

DALMIA NISUS FINANCE INVESTMENT MANAGERS LLP INVESTS ~ INR 80 CRORES ACROSS TWO PROJECTS

Dalmia Nisus Finance Investment Managers LLP (“Dalmia Nisus”), an alternatives manager has recently invested a cumulative amount of ~INR 80 Cr in projects of Puravankara Limited & Tanmathra Aquarelle Private Limited managed by Shriram Properties Limited through their Real Estate Credit Opportunities Fund – I (RECOF – I).

Dalmis Nisus is the joint venture fund of Nisus Finance headed by industry veteran Amit Goenka and the Gaurav Dalmia Group. These maiden investments are part of the Rs. 500 crores RECOF-1 Fund that primarily invests into structured credit and mezzanine investments across the residential space in India. RECOF-1 had announced its first close in March 2020.

The first transaction of RECOF-1 with Purvankara Limited was closed around December 2020 for a plotted development in Chennai. The second transaction of the Fund is towards new gated community project called “Shriram Chirping

THE FUND IS CURRENTLY IN THE PROCESS OF CLOSING THREE MORE INVESTMENTS FOR RS. 125 CRORES IN MUMBAI, PUNE AND BENGALURU.

Grove” in South Bengaluru being developed by Shriram under a Development Management (DM) arrangement, for Tanmanthra.

Amit Goenka, Managing Partner and CEO of the Fund said, “We are excited about our investment with the Puravankara Group & Shriram Properties. Our investments are uniquely structured to create a win-win with our investee companies while significantly mitigating idiosyncratic risks. Our investors will generate a significant alpha due to the uniqueness of our structure and partnership. RECOF-1 is on its way to become an outperformer within the RE-PE space.”

SNIPPETS

INDIAN ARCHITECT ANUPAMA KUNDUO NAMED 2021 RIBA CHARLES JENCKS AWARDEE

The Jencks Foundation and the Royal Institute of British Architects (RIBA) have announced the 2021 recipient of the RIBA Charles Jencks Award as Indian architect Anupama Kundoo.

INDIA'S LARGEST FLOATING SOLAR PROJECT IN SIMHADRI

NTPC began commercial operations at India's largest floating solar PV project at Simhadri thermal station in Visakhapatnam, AP. The total installed capacity at the facility is 25 MW.

KUWAIT TO BUILD REGION'S FIRST ELECTRIC VEHICLE CITY

Kuwait authorities have announced plans to build EV City, which is billed as the region's first city that exclusively cater to the needs of electric vehicle manufacturers.

AMAZON INDIA'S NEW SPECIALISED CENTRES IN TELANGANA

Amazon India has announced the expansion of its fulfilment network in Telangana with the launch of a new specialised centre and spreading out of an existing one.

GLOBAL TOKENIZED REALTY COULD REACH \$1.4 TRILLION IN FIVE YEARS

As per accounting firm Moore Global report, Tokenisation is an emerging trend with potential to become a mega trend – and it is absolutely going to be a disrupter in global property markets.

COVER STORY

REAL ESTATE INVESTMENT OUTLOOK IN \$5 TRILLION ECONOMY

WITH RISING PACE OF VACCINATION ACROSS THE GLOBE, THE WORLD GDP IS PROJECTED TO REBOUND TO 5.5% IN 2021. INDIA IS WIDELY EXPECTED TO LEAD GLOBAL RECOVERY AND REAL ESTATE WILL PLAY A SIGNIFICANT ROLE IN THE DEVELOPMENT OF INDIAN ECONOMY.

By: Sapna Srivastava

Over the past year, the real estate sector has transformed in many ways. The consolidation during the pandemic was a positive outcome as it made the sector more attractive for the domestic as well as the international investors. Notwithstanding the disruptions of the pandemic, the long-term outlook for all real estate segments continue to be positive though varied in terms of the cyclical i.e. short-term changes. As per ICRA estimates, Indian firms are expected to raise >Rs. 3.5 trillion (US\$ 48 billion) through infrastructure and real estate investment trusts in 2022.

Arpit Singh, Managing Director, Xander Investment Management stated, "We being an emerging market focused investment firm, consider India as a key focus market. Last 18 months were extremely volatile for the real estate industry and a roller coaster ride for investors and operators in realty space. I think it will continue for the next one year depending on the pandemic situation. But this also provides an opportunity if we look at it from investors' perspective. Macro themes like India's demographic profile, presence of affluent middle class and growing urbanization makes India an attractive

investment destination across all asset classes of real estate."

Vipul Roongta, Managing Director & CEO – HDFC Capital Advisors Ltd expressing similar sentiments said, "Real estate has become a favourable investment option among individual investors during the pandemic. With the prices and home loans becoming the lowest in recent history, it has boosted the homebuyer's interest. Also, as compared to earlier times when a developer's equity in a project was 5-10%, it is now almost twice in new projects. HDFC Capital's strategy is that of partnering with top-rated developers across India and address the demand-supply gap by providing flexible, long-term capital."

Dr. Annurag Batra, Editor-in-Chief & Chairman, exchange4media & BusinessWorld Media Group expressed, "Indian Real estate sector over the last decade had lost its sheen as an investment class. With the current pandemic situation, real estate has bounced back but there is a cautious optimism for the future as the country is still not out of the pandemic."

Khushru Jijina, Executive Director, Financial Services, Piramal Enterprises Ltd. & MD, Piramal Capital & Housing Finance Ltd was of the view that Indian real estate has progressed from being just a brick and mortar to becoming a service industry with 'hotelization' of commercial realty and



ARPIT SINGH



VIPUL ROONGTA





DR. ANNURAG BATRA



KHUSHRU JIJINA



SNEHDEEP AGGARWAL

residential segment becoming even more organized. "In pre Covid era, everyone was talking about commercial segment and how residential was struggling, now the situation has turned 360 degrees. SWAMIH fund has provided funds to stalled projects while, investors like banks, NBFC's, private equity players are backing professionally organized developers and financially viable projects."

Snehdeep Aggarwal, Founder-Chairman, Bhartiya Group added that given India has the second largest housing segment after China, it will generate strong demand for next 20 years. "Investors have a huge opportunity in the untapped real estate market of India especially the residential segment," he said.

EMERGING REAL ESTATE THEMES

Making a significant rebound the realty sector saw some emerging themes in various assets born by the market upheavals during the pandemic. Housing segment remains at the top of government agenda, catalysing construction of affordable housing projects and affordable rental housing complexes (ARHC) and finalizing the Model Tenancy Act.

As the industrial & logistics (I&L) segment takes centerstage, government is keen to extend support via draft national logistics and industrial policies and investments in setting up industrial corridors. E-commerce policy formulation will provide a level-playing field to all players encouraging warehousing real estate investments. Growing need for digitization leading to increased focus on data centers (DC) and formalization of the segment through a DC policy and government investments makes this the most attractive investment opportunity for institutional funds.

• **Residential:** Ten years ago residential used to receive the largest chunk of investment from private equity space in India, which saw a slump in the last few years. With the current reorganization of the residential space,

Investments from private equity (PE) players and VC funds reached US\$ 4.06 billion in 2020. The real estate segment attracted private equity investments worth Rs. 23,946 crore (US\$ 3,241 million) across 19 deals in Q4 FY21. Investments in the sector grew 16x compared with Rs. 1,470 crore (US\$ 199 million) in Q4 FY20. In value terms, these investments were 80% of that in 2020 and 48% of 2019.

equity investment in the residential sector will pick up again. Also, to mitigate execution risks, developer consolidation and a higher number of JVs / JDs are likely going forward.

• **Offices:** Overall the office market had been resilient. Indian office market remains bullish as strong fundamentals of the sector continue to drive more occupiers and investors and attract huge deals. There will be portfolio optimization via the right mix of traditional, flexible spaces and remote working strategy.

• **Retail:** The retail sector had a tough past one and a half years but is expected to rapidly bounce back as entertainment and shopping has a huge demand amongst people. Landlords with flexible lease terms, malls with flexible / convertible / open spaces will witness greater retailer interest.

• **Industrial:** Industrial was the segment which was lagging behind before the pandemic. Now it has witnessed very strong performance

and huge amount of capital. With manufacturing moving from China, India has an immense opportunity to attract companies by providing institutionalised industrial parks. Overall leasing volume will increase in 2022, as availability of supply improves.

• **Alternative Assets:** Student housing, warehousing, data parks and co-working and co-living spaces are the latest favourites of investors in India and are gaining steam. REITs will have better access to low-cost capital from debt / equity markets and higher liquidity will enable increased capital deployment.

TRENDS DEFINING INVESTMENTS

The Indian government's focus on infrastructure development implies growth prospects of real estate as well. The investors though point out execution challenges such as changing regulations, land title issues, lack of transparency and governance. **Arpit Singh** elaborated, "If we can solve these existing problems then there will be huge tractions coming from international and national investors into Indian real estate sector. There is a thirst for income generating assets and a lot of private equity investment in India will be focused around yield generating assets and quality projects. Deals size in India will continue to be large but volume will be low due to the execution challenges. For that matter, REIT's have large potential to grow in Indian real estate market. I believe 10-20% investment will go into alternative asset classes in Indian real estate sector."

Dr. Annurag Batra agreed, "It's a great time to invest in real estate directly and through stocks. There is enough liquidity in the market for the right product and player. The positive economic outlook, demand revival in residential with strong end-user interest and government impetus as well as alternative asset classes like data centers, student accommodation and flexible spaces will bring in more investments to the sector beyond 2021."

The 3 C's of Indian economy - Compassion, Collaboration and Contactless are keeping the Indian realty industry afloat and will drive its future growth.

Snehdeep Aggarwal added, "There are a lot of opportunities in social housing development which will see great boom in the next ten years due to central government incentives for affordable housing. I can see more large finance companies, banks and global capital foraying in this segment. However, development of a conducive ecosystem is crucial for both demand

Technology Integration:

Technology will play a big part in Indian real estate sector. Pandemic accelerated the adoption of technology in construction, marketing and operations of realty projects and boosted confidence of the investors.

Sustainability Factor:

Sustainability is an important mandate especially for foreign investors. Projects with sustainability features integrated in the development strategy will attract more institutional investments going forward.

Investors' Confidence:

Real estate has regained its position as an attractive investment class. Globally it has been noticed wherever economy is coming back to normal, sales have bounced back strongly in every segment of real estate.

and supply."

Vipul Roongta said, "Pandemic has changed the view of investors. In the commercial and warehousing space we have seen a maximum amount of money being invested. Data centers are in significant demand and retail will bounce back quickly. We have invested in around 9 start-up platforms in different verticals of real estate and a big tech-platform in the logistics space as the potential to make money from consumer technology is huge. We plan to invest two billion dollars in the residential real estate sector in the next 2-3 years and are also looking into commercial space and rental housing segments."

Khushru Jijina stated, "We happen to be one of the important stakeholders in this industry. Our main focus is to ensure that the developers who we have given funds, deliver their projects on time. Besides residential, other exciting segments for us are warehousing, industrial and data centres. Consolidation in the industry among listed and non-listed companies will continue for next 3-4 years. I can foresee stability in residential real estate and absorption of new age services in the commercial segment."

INVESTORS PERSPECTIVE

In general, investors are currently focusing on one key market segment while analysing other asset classes to spread their footprint. Investor's emphasis is on quality over quantity in terms of delivering projects. As the market moves rapidly with any micro or macro change, understanding the niche market and business model is the top priority. Some of the non-negotiable factors for institutional real estate investor are the following of regulatory compliances, legal frameworks, clear titles and transparency in functioning as well as ESG practices as per the company's global mandates.

The views were expressed during the VCWorld "Convergence" The Global Real Estate Investment Summit" organized By Realty+ in association With BW Businessworld

BRAND SYNC

ONE SURFACE – MANY POSSIBILITIES

B G VYAS, COO, KAJARIA CERAMICS LTD (PVT DIVISION) BRIEFS ON PRODUCT VITRONITE, THAT HAS TWO POSITIONING STATEMENTS – AS NEW AGE KITCHEN TOPS FOR MODERN KITCHEN AND AS NEW AGE GRANITE & MARBLE.

In India, there exists a huge market of kitchen top and tabletop segment and there is no organized player in this category. Due to changes in lifestyle and emerging category of luxury houses, end users and approvers are looking for product which is technically superior, cost effective and has a wide choice. Vitronite has allowed the company to enter the hitherto untapped, vast natural stone market as an authentic replacement of Granite and all types of marbles, including Italian Marble.

SKUS ON OFFER AND POSSIBLE APPLICATION AREAS?

At present, we have 35 SKUs and will bring in more options, as we grow in this category. Currently, five variants being offered in this segment are - Terrazzo (Homogenous Body), Salt & Pepper (Homogenous Body), Solid Colors (Homogenous Body), Marbellite (Italian Marble Series) and Plain (Color Body). Vitronite is available in size 800mm X 2400mm and 15mm



thickness. The high thickness provides extra strength and durability making it ideal for high traffic areas, public places like airport, mall, school, hospital, and corporate offices to name a few. The breaking strength of this 15mm thick vitrified slab is almost two times more than granite. Also, it offers functional benefit to the edges for profiling (bullnose). Vitronite can be used as Kitchen top, Tabletop, Bathroom vanity top / countertop, Staircase, Door or Window framing, TV units, Hard Floors

VITRONITE OFFERS VALUE FOR MONEY IN ITS CATEGORY AND FULFILLS BOTH AESTHETIC AND FUNCTIONAL NEED OF THE CUSTOMER.

etc. Moreover, with the right binding agent (adhesive), Vitronite can be used for wall cladding and bathroom walls.

LAYING AND MAINTENANCE OF VITRONITE

These tiles are easy to handle and a trained mason can lay them easily. Correct measurement of the application area with the normal wastage percentage factored is recommended to avoid wastage. Vitronite surfaces can be washed with a warm water & detergent and dried with a clean cloth. Avoid using hydrofluoric acid. If liquids are spilled, they must be dried immediately for easy removal of stains. Some stains/products require specific substances for removal. Vitronite surface does not require any polishing after laying as it is a ready to use product - pre-sized, pre-cut, pre-polished, unlike Granite & Marble.

Realty+

BE ON THE FRONTLINE OF DIGITAL TRANSFORMATION

Realty+
MASTERCLASS

A series of webinars that provide a platform to discuss current topics of interest to the real estate industry, featuring experts and industry leaders.

REAL
TALK

Video interviews that address honest views & opinions, facts & figures for the benefit of all the stakeholders of the industry.

R+
DIGITAL
CONNECT

Digital marketing initiatives on Realty+ online channels that provide high visibility and real-time engagement.

For Brand Integration & Partnerships, contact:

Ganesh Gurav +91 99309 60403 | ganesh.gurav@exchange4media.com

Tripti Kedia +91 98200 10226 | tripti@exchange4media.com

PERSPECTIVE

INCREASING VALUE AND PERFORMANCE OF REAL ESTATE

WITH 25 YEARS OF EXPERIENCE, 8000+ INSOURCED WORKFORCE AND OVER 100 MILLION SFT AUM, EMBASSY SERVICES PVT. LTD. IS ONE OF INDIA'S MOST TRUSTED INTEGRATED FACILITIES MANAGEMENT ORGANIZATIONS.

PRADEEP LALA, MANAGING DIRECTOR AND CHIEF EXECUTIVE OFFICER AT ESPL SHARES HIS VIEWS ON THE NEW TRENDS AND CHALLENGES IN THE FACILITY MANAGEMENT (FM) SECTOR.

Pradeep Lala anchors ESPL's growth both as a business visionary and industry expert. Sharing his experience he stated, "My journey in FM started with Embassy Services (ESPL) in 2013. While the firm was initially set up to manage the owned assets of the Embassy Group, my purpose in leading the firm was to establish a staunch leadership that furthers the legacy of the Embassy Group. I took it upon our vision to grow it across the open markets using our expertise garnered since 1995. The initial period was all about learning and understanding the depth of the sector. Little did I know that the nature of business embodies daily virtues that we imbibed as part of discipline and hygiene since childhood. This triggered my interest and enhanced my outlook toward the sector. Through my tenure, FM has evolved to a great extent; From being perceived as a back-end function, to becoming frontline warriors essential to business continuity for organizations."

FROM A BACKEND FUNCTION TO FRONTLINE WARRIORS

The pandemic's need for safety and hygiene at public and commercial spaces boosted the demand for

efficient facility management. **Pradeep Lala** agrees that before the pandemic, FM was considered a back-end function that required basic attention for sanitation and maintaining the uptime of technical assets.

"The pandemic allowed businesses to truly understand the ability of a professional and compliant FM partner to aid business continuity, minimize risks, increase productivity, and boost retention. Most businesses are now forced to comply with evolving norms and seek the perseverance of a highly responsible and safe facility, thereby requiring professional FM partners to assure the employees' and stakeholders' safety. Having said that, responsible organizations have always set precedence to this even prior to the pandemic, just tweaking more aspects to meet compliance goals set to suit the new normal."

NEW DEVELOPMENTS & LEARNINGS

With many organizations opting for a hybrid work model, there is a dynamic shift in the way office spaces function. **Pradeep Lala** concurs that the hybrid model does seem to be working for many sectors with the given hardships. "However, how effective it would be when we return to normal, if competitors engage



“

**"AS THE PROPERTY
MANAGEMENT PARTNER
FOR EMBASSY REIT -
INDIA'S LARGEST LISTED
REIT, OUR GOAL FOR THE
NEAR FUTURE IS TO
ASPIRE TO GLOBAL
STANDARDS OF
PROPERTY MANAGEMENT
AT PAR WITH REITS FROM
SINGAPORE AND OTHER
COUNTRIES."**



in conventional models is yet to be seen. Regardless of the work models, I am sure that the commercial office segment is going to grow, and the significance of FM will be paramount. I also believe that the pandemic has been all about learning and quickly adapting to ambiguities. The most important virtue all of us have learnt is the concept of flexibility – physically and mentally. We have not only had to venture into the idea of a flexible workspace, but we have also had to extend flexibility as part of our business ethos and partnership with stakeholders.”

ESPL SETTING GLOBAL BENCHMARKS

As an FM provider, ESPL has spent the past few years developing technology tools to aid its service delivery. These tools are a bouquet of technology modules called ‘E-Spectrum.’ Elaborating on the initiative, **Pradeep Lala** shares, “What these tools do is allow for remote management of assets and automation of reporting and data analytics. Especially during this pandemic, these tools allowed us to engage with clients through seamless delivery of operations, with zero downtime, in a remote setup. Another engaging experience we had related to BCP was with one of our IT clients, we took the responsibility of sanitising, packaging and even transporting PCs to the



FROM A VAGUE SENTIMENT OF BEING A CLEANING INDUSTRY, THE SCOPE TODAY INVOLVES SUSTAINABILITY AND TECHNICAL ASSET MANAGEMENT GOING IN-DEPTH TO CREATE A BETTER WORLD TO WORK AND LIVE IN. THIS IS BY FAR THE MOST RAPIDLY GROWING INDUSTRY THAT PROVIDES EMPLOYMENT TO THE MAJORITY OF BLUE-COLLAR WORKERS, FOCUSED ON FOSTERING HOLISTIC WELLBEING.”

employees’ homes to aid their BCP. Such initiatives clearly contrast the advantage a great FM partner can bring forth.

Moreover, we strive to comply with benchmarks set by global bodies such as LEED, BSC, USGBC, IGBC, GRESB, etc.



These bodies audit our practices that require adherence to benchmarks in Energy Management, Water Management, Waste Management, employee physical and mental wellbeing, etc. To qualify with a 5-star rating in these audits, we control infrastructure and technology upgrades worth over 100 Cr per annum. These will be spent on energy-saving equipment such as HVACs, AHUs, PUCs, LED Lighting, STPs, OWCs, IAQ monitors, etc.

A major contributor to achieving these goals is renewable energy. A 100 MW solar plant located in Bellary, Karnataka provides renewable energy to 3 of our business parks in Bangalore, while other parks across the country foster use of energy through rooftop solar panels as much as possible. As the FM partner, we employ experts in Energy Management to suggest plans for wheeling of energy to end-users and use the best practices for O&M of the plants."

FUTURE GROWTH OF THE SECTOR

On an optimistic note, **Pradeep Lala** expresses that the future looks extremely promising with exponential growth for the sector. "Post pandemic routines will boost the deployment of manpower to meet the updated standards and frequency set to comply with norms. This along with



WITH INCREASING ACCEPTANCE OF OUTSOURCING NON-CORE ACTIVITIES, BURGEONING DEMAND FROM COMMERCIAL AND INDUSTRIAL CUSTOMERS TO DELIVER SUPERIOR LIFESTYLE EXPERIENCES TO END-USERS, AND THE GOVERNMENT'S PUSH FOR SMART CITIES, THE PROFESSIONAL, ORGANISED SECTOR IS SET TO FLOURISH."

a rapid transformation in the industrial, warehousing and logistics sector will boost the demand for FM services. Apart from this, with responsible organizations seeking certifications from globally renowned bodies, the role of FM service providers will continue to grow beyond the conventional FM scope of services, with more focus on ESG, Technology, Surveillance, AI, Data Analytics, etc."

FORTUNES OF THE REALTY SECTOR HAVE SEEN BUOYANCY

AMIT GOENKA, MANAGING DIRECTOR & CEO AT NISUS FINANCE (NIFCO) SHARES HIS OPINION ON THE PRESENT SHIFTS SEEN IN THE INDIAN REAL ESTATE INVESTMENTS.

COVID-19 has pulled up the fortunes of the large corporate developers with the listed players witnessing an average 30%-50% rise in market capitalization over the past twelve months. Residential segment is considered to be a stable asset class and a preferred investment option especially in a volatile market scenario. FPIs continue to repose faith in this segment.

There is still some uncertainty in the commercial and retail segment which is driving investors to the demand rich residential segment including stressed assets. Alternate Investment Funds (AIFs) investments in distressed assets bring the expectation of high returns as distressed assets can be acquired at a discount without constraints of NPAs and extensive regulation applicable to traditional lenders.

The affordable housing comprising homes under Rs. 45 lakhs & 60 sqm & 90 sqm in metro and non-metro respectively has limited private investor takers due to the challenges of margins and the buyer's inability in securing home loans. Private capital tends to back affordable housing defined by relative ticket sizes for each city for the MIG segment. Funds and NBFCs also partner in projects which have over 20% development margins and attract credible buyers with incomes ranging above Rs. 15 lacs.



INVESTORS ARE FOCUSING ON PORTFOLIO DEALS WITH LARGE DEVELOPERS ACROSS MULTIPLE CITIES AND ASSETS, SHOWING A PARTNERSHIP APPROACH. THE SALE VELOCITY, COLLECTIONS AND MARGINS FOR TOP PLAYERS HAVE INCREASED SUBSTANTIALLY WHICH CANNOT BE SAID FOR THE SMALL AND MID-DEVELOPERS.

CRITICAL ISSUES IMPACTING REALTY SECTOR

- Capital flows from banks and NBFCs have come to a trickle and largely diverted to the branded developers. Alternate funds and private equity are also being reserved for the select few.
- End customers that form over 90% of the housing consumers are gravitating towards large branded developers or late-stage inventory, hence sales for the smaller players has become difficult.
- The input costs of most projects have jumped by nearly 8-12%, causing difficulties for the marginal players in garnering resources for accelerated completion and their profits getting squeezed.
- The second wave did not offer much relief from central or state bodies, creating financial, regulatory and legal challenges for many developers.
- Smaller players are forced to rapidly sell and exit even at deep discounts in favour of big boys, leaving little room for ambitious small scale developers.

Q&A

CAUTIOUSLY OPTIMISTIC OUTLOOK FOR REAL ESTATE

MUMBAI'S LEADING REAL ESTATE COMPANY, THE WADHWA GROUP CARRIES A RICH LEGACY OF OVER HALF A CENTURY. **KUNAL CHHEDA, CHIEF OPERATING OFFICER, THE WADHWA GROUP** SHARES HIS PERSPECTIVE ON THE REALTY MARKET AND COMPANY'S GROWTH STRATEGIES.



The Wadhwa Group has always avoided over-aggression, over-trading and has acquired strategic land parcels under asset-light approach. "We will continue with the same approach and are looking forward to acquiring strategic land parcels at marquee locations, says Kunal Chheda.

Talking about the transformations in the company he added, "During the lockdown period, we outsourced a lot of non-core functions, made the organization leaner in an organic way and invested in automation of processes, upgradation of ERP & standardization of reporting mechanisms. Now, flow of data within and outside the organization is much more seamless leading to a single version of truth. It has helped get all stakeholders aligned, achieving quicker financial closure and faster completion of projects. Involvement of all the employees in this process helped in generating grass root ideas and led to higher engagement levels."

HOMEOWNERS CHANGING BUYING PATTERNS

Post pandemic, customers are

looking at buying larger, environment-friendly homes with ample light, height and air. In this backdrop, the Wadhwa Group's novel concept of home designing called 'Ventilit' proved to be the key differentiating factor. Instead of focussing on designing compact homes with lesser ticket sizes to achieve larger volumes, we designed purposeful homes and phased out construction in a way, to achieve faster delivery of apartments

**"THOUGH LARGE
NUMBER OF STUCK
PROJECTS AND
INHERENT REGULATORY
CHALLENGES MAY
NOT AUGER WELL
FOR DRIVING MULTI-
FOLD GROWTH IN
THE SHORT TERM,
WE ARE OPTIMISTIC
ON THE OVERALL
FUNDAMENTALS OF
SECTOR AND DEMAND-
SUPPLY DYNAMICS."**

in shortest possible time. This helped the Group achieve sales closures worth over Rs 2,000 crs during the last financial year.

RECOVERY IN OFFICE SECTOR

During the pandemic, in spite of the rude shock to vacancy levels due to deferment of leasing decisions by prospective occupiers, the sector has remained resilient from cash flow point of view as the continuing tenants have been paying their rentals on time. This can be validated from the fact that on a collective basis, the 3 listed Indian REITs have seen strong rental collections of over 99% in Q1FY22. We are seeing green shoots of recovery in the small office segment as young entrepreneurs, small investors and IT start-up companies are lapping up these offices in independent buildings closer to residential areas. While vacancy levels are expected to rise further in the short term, we expect re-leasing activity to pick up pace in H2FY22 on the back of higher vaccinations, gradual return to offices and pick-up in international travel.

FINANCE



ALTERNATIVE REAL ESTATE DEBT **RISKS & PROSPECTS**

THE REAL ESTATE ALTERNATIVE INVESTMENT FUNDS (AIF) ARE PROVIDING DEBT TO REAL ESTATE DEVELOPERS TO MEET THEIR PROJECT FINANCING AND CAPITAL NEEDS. CUSTOMIZED DEBT STRUCTURES AND CALIBRATED MONITORING SYSTEM HAS HELPED NOT ONLY THE REALTY SECTOR BUT ALSO ASSURED CONSISTENT RETURNS TO THE INVESTOR. THOUGH CHALLENGES REMAIN.



Real estate debt funds rose to prominence in the wake of the IL&FS crisis followed by the regulatory changes. With banks and other traditional capital lending sources pulling back from real estate lending, real estate debt funds helped connect borrowers (often developers) with short-term capital for projects and construction loans. They occupy a small but profitable niche in the world of real estate lending.

Loan sanctions for developers during the quarter

Most debt funds are focused on a particular loan strategy or investment idea and work with borrowers who have complex financial situations or do not have access to conventional credit.

ending December 2020 witnessed a sharp 81% on-year surge in number of loan sanctions and 180% growth in sanctioned loan, as per industry survey. Some lenders are also open to investing in distressed assets buyout by developers with proven track record. On the other end, NBFCs have tightened the norms for wholesale lending by taking exposure to lower risk assets.

Shobhit

Agarwal, MD & CEO, ANAROCK Capital Advisors stated,

"Traditionally, the lending to real estate had been by the public sector banks that were risk averse and not well versed with the dynamics of real estate sector. Such a scenario offered an opportunity for Non-

Banking Financial Companies (NBFCs) to foray in the sector. However, after the IL&FS crisis NBFCs have faced difficulties raising money and this has led to the era of Alternative Investment Funds (AIF) since 2018, with almost 60 AIF now operating in the sector."



Ritesh Vohra,

Partner & Head, Real Estate, Investcorp India Asset Managers Pvt. Ltd is of the view that alternative debt funds are not a suitable solution for social housing. "The majority of housing demand is for low cost homes which carries with them execution risk



in terms of keeping the right price for such projects. With government support, experienced private equity players can build social housing. It's important to understand the long term benefits, funding needs and timeline aspects before starting such projects. But, alternative debts will



play a significant role in commercial housing projects."

Chetan Shah, Executive Director, Kotak Realty Fund shared his perspective, "I believe funds should be strategy specific. We started our business in 2005 when the FDI had just opened up in the realty market and we

raised \$ 2.2 billion across ten different funds. Recently we have raised a \$ 380 billion fund for investing in credit strategies across all the real estate classes. We have a pool of funds available for deployment in private equity, debt, residential, commercial, retail and other asset classes. We also had investors who wanted to invest specifically in the affordable housing asset class as well as funds primarily targeted towards affordable housing. According to Oxford Economics University, not too much depreciation is expected in Indian Rupee value till 2030 that also acts as one of the key factors that investors look at before investing. Factors like strategy, investment focus and also understanding investor's requirements are very important to drive right investors into the right asset class. So that the investor will also participate in the decision making activity."

Amit Diwan, Managing Director and Country Head, Hines India agreed that there is enough capital in the market and lenders and borrowers both need each other. "For fruitful investments, lenders look for logical business



plan, high quality operator and confidence in his execution capabilities. The developer owning a good quality project will get funding easily. Currently, office sector is in the

middle of a crisis and it will continue for some time till the economic activities recover and the occupiers once again drive the growth of commercial realty which in turn will

boost investments."



Gaurav Karnik, Partner Tax and Regulatory Services, Ernst & Young LLP added that from the tax perspective, the government should allow commercial real estate developers to set off GST paid on inputs like cement from the tax liability on rental

income to avoid double taxation and give a boost to the office market."

LAST MILE FUNDING FOR DISTRESSED PROJECTS

Despite, the challenges of the pandemic real estate sector has shown great resilience with foreign and domestic investors showing interest in residential real estate apart from rentable commercial assets. They are seeing a good business opportunity in last mile stress

With the slowdown in sales, most real estate developers struggled to raise funds to construct properties. But, with improving sales in last few months, the flow of capital towards the real estate sector has improved. However, many developers have voiced concerns on difficulty in procuring construction finance, which was once considered safest form of lending by banks and non-banking financial companies (NBFCs). Those who are getting construction finance are paying high interest rate of up to 15%.

funding for incomplete/stalled projects. According to experts, in a sharp contrast to previous years, more investors are showing keen interest in last-mile funding for stuck housing projects.

Ritesh Vohra expressed that for funding a stressed project, most lenders have a checklist of requirements to be met before assuring any investment. "There are many orphaned projects especially in residential segment where developers do not have the capacity to complete the construction, lenders have no confidence in such projects and the buyers have lost hope of getting their homes. For last mile financing, lenders usually look at projects that are near completion, have lower risk in terms of cash flow and have approvals in place."

Still there are many projects which will not be able to come under the criteria of last mile financing and end up being incomplete. Now, to ensure that the stuck projects are delivered, specialist asset management firms have entered the real estate business. They follow the DM model where they act as development managers for developers and landowners in exchange for a share of revenue, a profit share, or a management fee. In addition, many NBFCs and reputed developers have come to the fore to invest in stressed projects.

Chetan Shah agreed that not all projects can be considered for last mile funding by banks and NBFCs. "The protection available in SWAMIH fund is not available to other debt providers. The best scenario for projects that need last mile funding for completion is to allow the

As per the report by Savills India, in the first quarter of 2021, all the investment into Indian real estate came from foreign institutional investors. Of the total, 58 percent share (Rs 78.3 billion) went towards commercial office assets while 42 percent (Rs 56.7 billion) were invested into residential real estate.

incoming investor and Development Manager (DM) to complete the project with their execution strategy."

Shobhit Agarwal added that stressed developers should offer their viable projects to large, well-funded, well-managed developers, which will result in not only completion of projects and clearing their balance sheets but also, for the growth of the whole sector.

Gaurav Karnik pointed out some of the challenges developers are facing in raising capital, "Track record of developers is very important. When an investors or lenders puts money as equity or debt, execution of project, marketing strategy, cash flow management, etc. become



Investors have continued to show interest in real estate financing, but have also tweaked their strategies. Entity-level buyout portfolio deals for yield-generating assets are witnessing demand from institutional investors instead of the usual debt or mezzanine financing. The platform level participation with debt and equity is driven by more transparency and governance in the sector.

an important factor to consider. For the same reasons, banks have moved away from lending extensively and they strictly evaluate the merit of developers' past project history, market risk, partnership and execution risk and then finalize investment."

Amit Diwan commented on the private equity funding in distressed projects, "The feasibility of projects in India is impacted significantly not only by the very high tax levels but also with the risk of tax cases opening up and scrutiny for completely non-valid reasons. The sector needs simple and business friendly tax regime and transparency. Private equity is coming back in different asset classes and at different stages of the projects. The capital will get re-deployed and there will be a major shift in the product mix in the residential segment compared to the office segment in the next five years. Within the office segment there will be many more private equity funds foraying with venture capital and listed developers will be coming up with more IPOs."

ALTERNATIVE ASSET CLASSES IN REAL ESTATE

Non-traditional forms of real estate assets –from data centers to educational institutions and student housing– have become increasingly popular. Macroeconomic drivers such as urban growth, adoption of Internet and smart phones, and an aging population underpin the need for these alternative assets. Not surprisingly, against all expectations, Indian real estate recorded its highest-ever private equity investments in FY 21 since FY16 with investors focusing majorly on portfolio deals across multiple cities and asset classes.

Ritesh Vohra commenting on the trend shared that indeed there are new asset classes emerging within real

estate that are attracting investments. "The real estate sector is evolving and new business models are emerging in addition to basic segments of residential, office, hospitality and retail. The new segments like warehousing, data centre, student housing and flexi spaces segment present huge growth opportunities in the coming years."

According to **Shobhit Agarwal**, foreign funds are upbeat about India and high-grade rental-generating assets have attracted foreign investors in a big way even during the pandemic. Even, last-mile funding is gaining momentum with foreign funds actively evaluating various options. "The Industrial & Logistics sector had strong investor support. Key emerging trends in this sector are rise of automation, urban multi-level warehousing, de-centralization, increasing business consolidation, and high demand for Grade A assets," he said.

Chetan Shah stated that as a lender, their criteria for evaluation is not only the Grade A developer but, more importantly the potential to deliver quality project on time. "We even look at the developer's portfolio so that we can partner with them on all the segments including new asset classes. We mostly look at the promising developers with great capabilities."

Gaurav Karnik stated, "Pandemic has brought in focus internet connectivity infrastructure and usage of data. Industries need data centres to support such huge data used whether it is in e-commerce or manufacturing. Data centres are becoming the new sunrise sector, gaining attention from PE investors and strategic investors, even more than the warehousing segment."

As per **Amit Diwan**, the Indian real estate is now becoming a service rather than a brick & mortar product. "Whether it's in the working or living, the flexi-space model has a great future. Realty firms are exploring newer asset classes and are creating profits which in turn is attracting investors in those segments," he said.

Undoubtedly, though the initial phase of the coronavirus outbreak resulted in weakening of growth sentiments, the uncertainty seems to be temporary and is expected to have a limited impact on investor sentiments in Indian realty. Real estate has traditionally been seen as a safe long term investment option. Given the pent up housing demand, the infrastructure development and the growth prospects of commercial properties and other asset classes, Indian real estate will continue to remain the preferred choice of investors – foreign and domestic.

THE INVESTMENT TRENDS

Given the strong fundamentals, despite the challenges, Indian real estate across products offers one of the best risk-adjusted returns globally. Thus, foreign investors have continued to invest in Indian real estate and increase their allocations even during last year of pandemic.

The office sector continues to be the blue-eyed boy for investors due to the strong fundamentals of the India

office market. The investors are also emboldened by the encouraging response to the 3 REITs listed on Indian stock exchanges which provides them with a credible avenue for exit.

While the office segment has been generally favoured by global investors, foreign institutional firms are closely looking mid-income residential space as a potential investment opportunity in the long term. The affordable housing space that presents a potential for volume growth too is receiving a fair share of investments from global and domestic equity funds. The investor preference, which had moved from equity to debt in the last decade, again tilted strongly in favor of equity in 2020 and Q1 2021, indicating a resurgence in appetite to take risks and hopes for the new business cycle.

Retail sector worst hit by the pandemic saw the PE investment drop by 76% in 2020, though, in Q1 2021, PE investments in retail assets jumped to USD 484 million from USD 220 million in 2020. Warehousing and logistics emerged as the most preferred real estate asset class for institutional investors, pipping the all-time favourite commercial office segment for the first time during April-June 2021.

The first half of 2021 recorded a 33% increase in the investment in emerging asset classes such as data centres, flexible workspaces and co-living spaces. Given the increasing significance of the sector in the recent period, data centres hold vast potential as an alternative real estate asset, especially when it comes to large infrastructure investors who are looking at long-term yield income.

Inputs from Knight Frank & Anarock Research

The views were expressed during the VCWorld "Convergence" The Global Real Estate Investment Summit" organized By Realty+ in association With BW Businessworld

REAL ESTATE FUNDING OPTIONS



Private Equity: Private equity investment by an FDI or non FDI fund in a real estate project or at an entity level with a real estate developer.

Strategic Partnerships (JD/JV): Land owner participating in joint development or joint venture model with a real estate developer.

Construction Finance: Finance for completing the construction works of a real estate project.

Structured/ Mezzanine Finance: Finance structured with quasi debt & quasi equity features.

Lease Rental Discounting: Financing for tenanted properties against lease receivables.

Commercial Mortgage Backed Securities: Specialized financing for commercial properties.

Loan Against Property: Financing against real estate property

Bulk Inventory Sale: Financing by means of purchasing inventory usually at discount to market value for future capital appreciation.

Corporate Level Financing: Financing at corporate balance sheet level.

Core Asset Sale: Financing by means of sale of yielding core assets.

Public Markets: Financing via public market listing or subsequent issues.

External Commercial Borrowing: Financing via low cost foreign debt issue.

Receivable discounting: Financing against future receivables

EMERGING TRENDS IN REAL ESTATE

AADARSH SHAH, EXECUTIVE DIRECTOR, UB HERITAGE GROUP SHARES HIS PERSPECTIVE ON THE PANDEMIC'S IMPACT ON REAL ESTATE AND HIS OUTLOOK FOR THE FUTURE.

The COVID – 19 pandemic has resulted in a paradigm shift in homeowner's preferences. There has been an uptick in demand for housing as the concept of owning a home as compared to renting has gained traction. Nationally, low interest rates have also aided this positive sentiment. Buyers have shown a greater preference towards developments with more open areas rather than living amidst concrete jungles.

THE SPIKE IN DEMAND FOR PLOTTED DEVELOPMENTS

Majority of this demand has come from people who currently live in apartments. Having been stationed within the four walls of their apartments made them realise the importance of enjoying open spaces. Most of these plotted developments have come up in peripheral and outer areas of the city with an intention of being a weekend getaway while predominantly serving as an alternate future first residence. These plots are now being viewed as more of a necessity than a luxury; hence, the spike in demand in this segment.

IMPACT & RECOVERY IN RETAIL AND OFFICE SECTORS?

The impact of COVID – 19 on retail and office space sectors has differed from city to city. The most important metrics like rentals/sq. ft.,

average occupancy levels and net space absorption have been under pressure. At the same time, these metrics in many cities have bounced back to pre-COVID levels in no time. Generally speaking, the recovery will be heavily dependent on the supply of inventory (or the lack of it). Buyers and tenants will certainly be more attracted towards those spaces where developers and landlords will be willing to offer more flexibility with regards to lower rentals, ROFR for adjoining space for future expansion, better payment terms, longer fit out periods, etc.

UB HERITAGE PRODUCT OFFERINGS FOR 'NEW NORMAL'

'What does the property owner want?' This question has always been the guiding force for UB Heritage. Innovation in building systems/ technologies and practicality in planning are at the forefront along with - use of sustainable materials which are easy to operate, repair and maintain even after handover of possession, separate dry and wet areas in each bathroom in each home, provision for air-conditioning in the kitchen, separate foyer and elevators for domestic helpers and value added services such as reception, valet and concierge. Since 'work from home' has become the next big thing, we have also decided to add centrally managed business rooms/workspaces as a part of amenities in our residential developments.



In Gujarat, abundant availability of land has resulted in horizontal development more than vertical. However, due to an increasing number of surrounding areas being absorbed by the city municipal corporations and urban development bodies, along with framing of new master development plans, the Gujarat real estate market holds great promise for developers and investors. Moreover, the state government's pro-active capital investment measures are also helping generate demand in the residential, commercial and industrial segments.



REALTY+ WAS CREATED
TO UNDERSTAND THE
NEEDS OF THE REAL
ESTATE BUSINESS. FOR
THE PAST 15 YEARS,
IT HAS BEEN AT THE
FOREFRONT OF
FEATURING CONTENT
AND COVERAGE ON KEY
MATTERS OF REAL
ESTATE

WIDEN YOUR
REACH WITH
Realty+

CONNECT WITH
CORE SEGMENTS

- 1** REAL ESTATE DEVELOPERS
- 2** BUILDING MATERIALS INDUSTRY
- 3** ARCHITECTURE & INTERIOR DESIGN
- 4** BANKING & FINANCE
- 5** CO-WORKING & CO-LIVING SPACES
- 6** FACILITY MANAGEMENT SECTOR
- 7** PROPTech COMPANIES
- 8** REAL ESTATE MARKETING AGENCIES

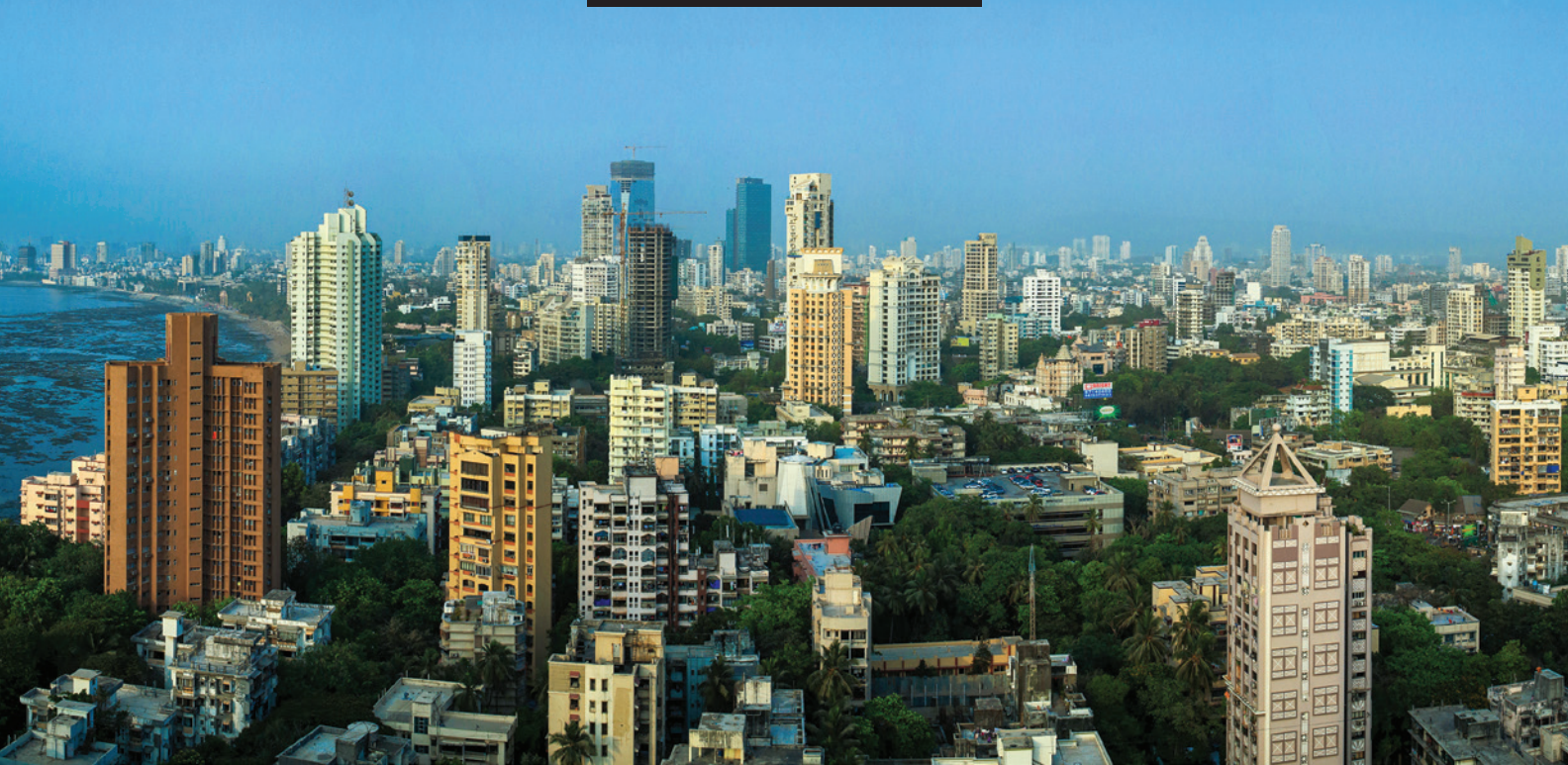
ENGAGE WITH A
READERSHIP OF OVER

250000
EVERY MONTH

HAVE A PRESENCE IN

1500+
REAL ESTATE HUBS IN METRO
AND NON-METRO CITIES

For Advertising &
Collaboration, Contact:
Tripti Kedia +91 98200 10226
tripti@exchange4media.com



RESIDENTIAL REALTY RECOVERY & INVESTMENT OPPORTUNITIES

Q4 2020 WITNESSED INCREASED PACE OF RECOVERY WITH OPENING UP OF THE ECONOMY. THE HOUSING SALES SAW GROWTH BY 34% ON A SEQUENTIAL BASIS. AS PER INDUSTRY EXPERTS, MORE INCENTIVES FROM GOVERNMENT FOR PRIVATE FINANCIAL INSTITUTIONS TO FUND PROJECTS CAN SPUR THE REVIVAL

The pandemic has accelerated home buying across Indian cities and developers are likely to capitalise on this sales momentum. What is vital now is the requisite funding to complete existing projects and with buying

sentiment expected to remain strong, to tap the market for new launches. However, investors are cautious of underlying risks despite the optimism.

As per IBEF, housing launches were 86,139 units across the top eight Indian cities in the second half

of 2020. Home sales volume across eight major cities in India jumped by 2x to 61,593 units from October 2020 to December 2020, compared with 33,403 units in the previous quarter, signifying healthy recovery post the strict lockdown imposed in the



second quarter due to the spread of COVID-19 in the country.

Sharing his observation, **Irfan A. Kazi, Chief Investment Officer-SWAMIH Investment Fund, SBICAP Ventures Ltd** stated, "The pandemic and its after effects seem contrasting for the realty sector, as on one end it has generated high demand and sale conversions for big developers, on the other it has created difficulties for small developers as they struggle to complete stalled projects. The rising cost of construction materials and labour are further adding to their woes."

Amit Bhagat, CEO & MD, ASK Property Investment Advisors pointed out that some state government's incentives of stamp duty cut were the biggest reason of increase in sales. "But, given the compounding of high loan interests, lenders wanting to exit projects sooner and disruption in homebuyers share collections, many

developers faced financial difficulties in completing their projects which are ongoing."

Ramesh Nair, CEO – India & MD, Market Development – Asia, Colliers shared some data points. "According to the global surveys, in year 2020 hotels' overall capital flow was reduced by 70%, in office space by 35% while in warehousing by only 7% and in residential by 15%. Globally residential segment suddenly has become the preferred asset class. In India, there is an ongoing real estate sector consolidation and 30 percent of the developers are doing reasonably well. Bengaluru, Mumbai and Pune residential realty did reasonably well during the pandemic and financiers who do not invest in land allocation projects fared better. Credibility, track record and execution capabilities of developers were most important for lenders before doing partnership."



IRFAN A. KAZI



AMIT BHAGAT

Sharad Mittal, CEO, Motilal Oswal Real Estate agreed, "One of the biggest takeaways from the pandemic for the developers is to be cautious of the loan interest rates and not overleverage themselves. Consolidation of the realty sector accelerated in the last year and given the demand for housing witnessed in 2020, I remain optimistic that with time things will come back to normal and we will see recovery in many segments of real estate."

Ashwinder R Singh, CEO Residential, Bhartiya City shared that residential markets of Mumbai, Bengaluru and Pune continued to do fairly well during the pandemic while Delhi NCR suffered the most. "From demand side home loan interest rates were at an all-time low and combined with government incentives and relaxations, the residential segment got a boost. While, some developers managed to continue construction work as well with on-site labourers, the small scale developers struggled on all aspects, be it labour scarcity, spike in raw materials of paucity of funds to execute the projects."

Gautam Saraf, Managing Director, Mumbai & New Business, Cushman& Wakefield was of the view that the residential real estate is still the most effective and valued investment. "The transformation in the residential portfolio in last few years has been about the location. Till recently city centres were favoured by developers, but now we are seeing frenzied activity in locations that were earlier considered mere peripherals. The developers that had the foresight were quick to make the best of the opportunity with rise in demand for bigger affordable homes during the pandemic."

The experts did concur that new capital is coming in the residential sector both for Greenfield and brownfield as well as distressed

projects. New funds are being raised and capitals formed on both domestic and international platforms for residential real estate. The biggest reasons being the maturing of the segment and the inherent strong demand on the back of the rapid urbanization across India. They recommended that investors look at last-mile funding in the residential sector, which is witnessing some latent demand.

SIGNS OF REAL ESTATE RECOVERY

Overall the real estate market has been positive and next decade could be a bull run for the Indian real estate market as per market observers. Some of the reasons for positive outlook are the great demand for housing across Indian cities, incentives and reliefs provided by the government and RBI to the buyers and developers offering flexible payment plans. The luxury properties too saw good buyer's traction in metro cities more so because of the price drop and stamp duty cut in some states. Many homeowners upgraded to bigger homes in luxury property category driven by the desire to have more space and amenities in the wake of the ongoing pandemic.

The developers are very bullish on a speedy recovery of housing market and are hopeful that in sync, other segments too will see steady growth in coming years as the country progresses with its vaccination drive



RAMESH NAIR



SHARAD MITTAL

Sharad Mittal stated that the sector gathered momentum on the back of bottomed-out prices, peak affordability, historically low mortgage rates, and government incentives. Several developers clocked record sales in the last two quarters of FY21. "We believe that the recovery that the sector witnessed in the last few months was more fundamental and demand-led due to which home buying will resume pace in this fiscal as well after this temporary blip," he added.

Amit Bhagat, said, "We are bullish about the residential space. Homes across the spectrum including luxury and second homes, plotted sales did well in the pandemic and the opportunity for investors is



ASHWINDER R SINGH



GAUTAM SARAF

lucrative and counter-cyclical if one understands the risk metrics."

CAPITAL NEEDS & INVESTMENT PROSPECTS

While big realty firms were able to attract capital, small and medium property developers were hard hit with liquidity crunch during the pandemic. They are facing challenges in meeting their working-capital requirements. This has led to JVs and partnerships among realty firms in order to raise funds. Capital flow has been seen from NRIs due to the depreciation in the rupee in the last two years and Indian homebuyers as well given the stagnant prices and low mortgage rates.

Investors feel that the housing demand has been very strong in the last year and that will continue in the long-term. The PE and alternate invest Funds are finding a great opportunity for investments given that the domestic market is starved of capital with NBFCs pulling back and banks being wary. **Amit Bhagat** said, "For an investment, developer's credibility, intent, customer centricity, product delivery, track record of past delivery and execution capabilities; are the main considerations for eligibility." **Sharad Mittal** added, "We invest in the lifecycle of the project. Two years back we were focusing more on land acquisition. NBFC and SWAMIH funds provide funds to for last mile funding. We invest our money in existing working projects rather than distressed projects."

Irfan Kazi stated, "Unlike private equity funds, SWAMIH considers only RERA registered stressed and stalled projects with a positive net worth. The fund, after consultation with government, also brought down the internal rate of return (IRR) from 15% to 12% after several projects could not meet the net worth criteria. The fund looks at projects with no lenders, where the developer was able to generate significant sales initially but which later slowed down. One of the challenges faced is that there is significant reluctance from lenders who refuse to take second charge of the project once the fund comes in. As per regulations, SWAMIH takes first charge on assets and cash flows, which means they get paid first once the project is completed. Lenders are worried that acceding charge would result in change in asset classification, higher provisions, etc."

Ashwinder Singh agreed that the private lender are concerned about safety of their capital and returns while investing in a project "Many industry players are moving towards standard construction finance industry which carries lesser risk but lesser returns as well. In

The fund managers and private lenders demand is to be given priority in insolvency and bankruptcy proceedings. They want protection if an entity lands into the Insolvency and Bankruptcy Code's (IBC's) net even after their assistance.

the residential market we need lazy capitals. It offers viable investment opportunity to patient institutional investors. Moreover, once we bring the technological innovation in the residential market, international capital will be automatically attracted towards the segment. I believe, one SWAMIH fund is not enough to cater to the demand and requirement of vast residential market across Indian cities, there should be other funds that should come ahead to help distress projects."

Gautam Saraf stated, "Government should allow alternative investment funds to act like securitizing trust and can acquire assets from banks. Also, there are several cost charges and dues of various statutory bodies whether its land related premiums or taxes, the same should be relaxed in present scenario for a specific time. IBC has allowed home buyers to play a significant part in the committee of creditors. Maybe the new ARC or bad bank can give assets to the right capital providers. We need more aligned government policy for a structural overhaul of the segment."

Ramesh Nair shared his analysis, "Housing demand is definitely

picking up. In some markets, it has already returned to pre-Covid levels, especially for Grade A and institutionally backed developers. For the first time in the last 6 years, we are also seeing a pick-up in luxury residential and larger apartment. In addition, many companies continue to have a substantial portion of their employees working from home and thus, many prospective homebuyers have gone back to their native towns and cities. This is again a driver for housing demand across metros and smaller cities. This may be the ideal time for home buying as developers are keen on reducing their unsold

inventory and are mainly focussing on completing existing projects than launching new ones. Developers are taking a practical approach on pricing and not holding back on inventories. Prices are expected to move upwards as unsold completed inventory significantly reduces. There would also be profit booking in the stock markets which would funnel to the residential markets.”

NEW SHIFTS & INCLINATIONS IN RESIDENTIAL SECTOR

The Central government and RBI had rolled out critical measures

Sales in Q1 2021 recovered to more than 90% of the volumes witnessed in Q1 2020 (pre-COVID) across the top seven cities. Moreover, the markets of Chennai, Hyderabad, Kolkata, and Pune surpassed the sales volumes of Q1 2020.



including loan moratorium, relaxation of NPA classification norms, one-time restructuring of corporate and home loans, etc. These measures helped in enhancing consumer sentiment and increased traction in the real estate. Though, the actual market transaction volumes continue to be lower compared to pre-Covid levels in majority of the cities. Allowing 100% FDI in completed residential real estate projects through the automatic route and allowing input tax credit on calculation of GST payable in real estate could aid in spurring investment in the Indian residential real estate.

Amit Bhagat added that insolvency cases should be resolved in twelve months, so that investors can get the certainty of present developer moving out of the project and others taking charge to complete the project. "We need Intercreditor Agreement (or inter-creditor deed) between two lenders which plays a vital role in the right to lien. Also, for any international players foraying in the Indian residential realty portfolio, the return expectation is 23-25 percent because they carry a currency risk."

Irfan Kazi sharing his perspective stated that investors more often than not choose the developer and project based on their own risk return profile and accordingly they allocate assets among different asset classes within real estate.

Ashwinder Singh felt that the perception of the Indian residential real estate sector is that of an unorganized sector. "Only 10 to 11 top developers hold the residential market and other developers are considered off small scale stature by foreign investment funds. That's why this sector comes under B2C and not under the B2B section. Additionally, foreign investors shy away from investing in this segment as homebuyers are considered unpredictable and Indian law enforcement seems to be lacking in terms of transparency and dispute resolution. With government's focus on infrastructure development, smart cities and easing of regulatory framework, the future looks bright for attracting foreign investments."

Sharad Mittal agreed that with consolidation and maturing of Indian realty space, there is a growing interest of foreign investment funds in India realty space across asset classes. "Commercial real estate space is dominated by large players. In warehousing, domain experts have entered. Private equity is a very opportunist space, when large players don't take up a project,

As per Niti Aayog, Indian real estate is estimated to be around \$120 billion. In 2040, it is estimated to grow five-fold to reach \$650 billion

other qualified players can work on that project."

According to **Gautam Saraf**, tier 2 and 3 cities too have witnessed rise in residential demand with many people moving back to hometown from metro cities. "Plotted development and standalone residential assets are finding favour among homebuyers given the need for space and safety. Integrated townships are the future development models given that the residents are able to get facilities at their doorstep and well planned living amenities, a fact particularly valued during the lockdowns. For developers too, developing land parcels in suburbs are more financially viable than city centre locations due to the high cost of land."

Ramesh Nair added, "We are now seeing specialization in real estate. There was a time in 2006-2007 when DLF was looking to expand its footprint across other major cities. They were also foraying in hotels, IT parks and retail real estate. However, now they are concentrating in their own strong foothold market that is Delhi NCR. Specialization is not only happening in a specific real estate segment such as office, warehousing, co-living or co-working but, also region wise. This trend will continue to grow with time."

The views were expressed during the VCWorld "Convergence" The Global Real Estate Investment Summit" organized By Realty+ in association With BW Businessworld



Q&A

I LOVE THE PERKS & CHALLENGES OF REAL ESTATE

CONSISTENT QUALITY, VALUE FOR MONEY, FUTURISTIC DESIGNS & TIMELY DELIVERY ARE THE MAIN PILLARS OF RUDRA BUILDERS, FOUNDED IN 1995 IN GUJARAT BY VISIONARY JANAKBHAI BAROT. THE YOUNG SCION **RUDRA BAROT**, CEO, R-STONE DESIGN & BUILD PVT LTD. SHARES HIS VISION FOR THE COMPANY.



Following his father's footsteps, the young creative multitalented Rudra Barot aims to take the company global with his strong business acumen and strategically planned layout through the newly found sister concern R-Stone Design and Build Pvt Ltd.

HOW DO YOU SEE THE REAL ESTATE SECTOR TRANSFORMING IN COMING TIMES?

A strong policy support by the government, low mortgage rates, stamp duty and property registration fee reduction in a few states, along with incentives offered by developers have all contributed to the sustainability of this segment. In terms of transformations, along with affordability, builders will also have to offer facilities for a healthy lifestyle in the post-Coronavirus period. I believe, now customers are not satisfied only with quality living spaces and locational advantages, the future of real estate will depend on the integration of high-grade efficient delivery of personal mobility, housekeeping, wellness, digitally-enabled doorstep service, payments and other necessary concierge services.

REASONS FOR THE COMPANY'S FORAY IN MUMBAI AND VISION FOR ITS FUTURE GROWTH

Mumbai provides developed infrastructure, easy connectivity and access to public amenities. However, it is one of the most expensive real estate markets in the country and doing business in Mumbai is not an easy task.

"RUDRA BUILDERS HAS SUCCESSFULLY DELIVERED OVER 5 MILLION SQ FT IN GUJARAT ACROSS RESIDENTIAL, COMMERCIAL AND HYBRID PROJECTS. WE MOVED TO MUMBAI IN 2019 AND AIM TO EXPAND TO OTHER MAJOR CITIES IN INDIA AND EVENTUALLY TAKE THE COMPANY GLOBAL."

It was my decision to come to Mumbai as it leads to my ultimate goal of making a name for Rudra Builders globally. Furthermore, Mumbai Metropolitan Region (MMR) is the largest market for residential sales in the country. Also, among the top seven cities in the country with total inventory base of 6,41,860 homes, MMR region has 31%. These indications point out to the trend that the demand for residential properties in MMR will continue.

I want to deliver quality living standards to every individual investing in Rudra builders, with excellent after sales services and timely project delivery to maintain the trust we have built over two decades. We understand the necessity of keeping up with growing need and changing times. My vision for Rudra Builders is to reimagine the local real estate market through a combination of new-age construction technologies and innovative design approaches. We want to deliver world class amenities and solid structures all across the globe.



FOR REGISTRATION, CONTACT:

Monisha Karkera +91 9870441920 | monisha.karkera@exchange4media.com

Avantika Patel +91 76780 41182 | avantika.patel@exchange4media.com

FOR BRANDING OPPORTUNITIES, CONTACT:

Tripti Kedia +91 98200 10226 | tripti@exchange4media.com

Ganesh Gurav +91 99309 60403 | ganesh.gurav@exchange4media.com

FEATURE

IN THE CURRENT VOLATILE TIMES, COMMERCIAL REAL ESTATE HAS EMERGED AS A SAFE BET FOR THE INVESTORS. INDUSTRY EXPERTS CONSIDER THE PANDEMIC A SHORT TERM HICCUP AND PREDICT A BULLISH RUN FOR THE COMMERCIAL REALTY IN COMING DAYS.

COMMERCIAL REALTY INVESTING: TRENDS & INSIGHTS

According to a recent JLL report, India's net office absorption stood at 4.39 million sq. ft in the Q2, showing 32% YoY growth in major cities. Due to lockdowns across the country in the second quarter, net absorption dipped by 16% versus

the previous quarter. However, the quarter-on-quarter drop was lower than the 61% during the same period last year.

As per Savills analysis, the first half of 2021 saw roughly 41% of the investment inflows seen in the full year of 2020, indicating that investor

confidence is still high. Commercial real estate is proving to be an attractive investment option for both individual and institutional investors and private equity inflows into the commercial market have been increasing.

An Anarock report says that 7,400 office leases of 90 million sq ft is up for renewal in the top 6 cities in 2021 which is the highest lease expiry pipeline compared to the next two years – 2022 and 2023 across these cities. Year 2022 will see nearly



7,000 leases for approx. 78 mn sq ft come up for renewal, and approx 4,200 leases for over 55 mn sq ft in 2023. However, as many IT firms are considering stepping up their overall business post the pandemic and are currently hiring workforce which bodes well for the sector.

Knight FrankFICCI-NAREDCO Real Estate Sentiment Index Q2 2021 states that bulk hiring by IT firms will influence demand for large quality office spaces thus creating a

progressive outlook for commercial office market in Q2 2021, for both leasing and rentals.

According to CBRE's 2020 Global Occupier Sentiment Survey, the importance of physical office space is likely to remain solid. 38% of respondents said that the physical office space will remain as important, if not more. Additionally, 70% of the survey respondents were also confident about setting long-term real estate strategies amid the pandemic.

As the industry reports indicate, commercial real estate seem to continue to attract investors looking for assured higher returns. Commercial properties typically have an annual return of the purchase price between 6% and 12%, depending on the location and overall economic and market factors. Combined with the hiring spree by the tech companies in past few months, an upsurge in the overall office space demand in 2022 and 2023 is expected leading to an increase in volumes of deals and transactions.

FUND RAISING & INVESTMENT STRUCTURING

Commercial realty has been the shining star of Indian realty. Despite the disruptions, confidence of global occupiers in Indian commercial real estate has not shaken as is evident in the recent foreign investments that have doubled especially in the renewed intelligent and contactless work spaces. **Neeraj Bansal, Partner & COO, India Global, KPMG in India** stated, "Data centres and warehousing are bringing in a lot of international investors. Moreover, the corporates too have not given up on their expansion plans amid the pandemic and would require office space for the increased workforce immediately post Covid. Space demand from numerous unicorn start-ups too have fuelled the demand in commercial realty especially for flexi-workspaces. India's inventory of flexible office space is thus expected to grow 10 to 15% annually over the next three years. The annual warehousing transactions in top 18 cities will more than double to 76 million square feet by March 2026. Data centre market presents a strong investment opportunity of more than 5 billion by 2025 with non-metro cities playing an important role in growth projections."

Vinod Rohira, CEO, Mindspace Business Parks REIT added, "There is a phenomenal opportunity for organized players as well as a huge supply flowing in the market. Cost of capital is coming down and Grade A real estate players will see a great amount of opportunities coming towards them. With the fast paced vaccination in urban India, the workforce will resume office spaces soon. In addition, large global investors have a certain mind-set on what they want in specific asset segments and keep a pulse of the market. That is the reason, REIT's gained a lot of interest from big investors as they were well aware about its prospects."



NEERAJ BANSAL



VINOD ROHIRA



YASH GUPTA

Yash Gupta, Founder & Managing Partner, YGR expressed that 30 percent of the commercial real estate market belongs to big companies who own approximately one million square feet of IT parks and 70 percent of the market belongs to MSME's, start-ups and other small scale businesses. "Small and medium firms were affected due to the pandemic. This will lead to dislocation in this segment wherein we will see developers and operators acquiring commercial properties at interesting values and locations that were not seen or considered pre pandemic. The pandemic has also given us an opportunity to upgrade, redesign and reimagine the way we look at developing and operating the commercial spaces, which will definitely be more lean and efficient going forward."

Vinamra Srivastava, CEO, Business Parks, India – CapitaLand was of the view that both Grade A and B property developers will now endeavour to improve the product quality and also scale-up to cater to the new demands. "Pushing harder for sustainability, ensuring technology initiatives to ensure health and safety and for operational efficiency & customer experience are some of the changes already happening in this sector. Investment opportunity for institutional players in commercial segment can be divided in two segments - Greenfield development or acquiring ready assets, and both continue to have challenges. For a Greenfield development, identifying the right land and deploying capital requires careful feasibility study. While acquiring a ready asset, technical due diligence and ensuring clarity on Building Permits/NOCs/ Approvals is essential."

Arshdeep Singh Sethi, Managing Director- Executive Board, RMZ Corp added that in the present scenario, tier-1 cities offer the best investment opportunities in terms of commercial properties. "The major cities have shown a significant micro market

growth, for instance Bengaluru where the micro markets across the city are growing with great results. Tier 1 cities continue to have the largest absorption of offices and with infrastructure development tier 2 cities will gradually become attractive markets in few years."

According to **Ambar Maheshwari, CEO, Indiabulls Asset Management Co. Ltd** within cities, the overall vacancy was higher in the central business districts as compared to secondary and tertiary business districts. One of the key reasons being the arbitrage between the rentals and fit out spaces. "Secondary or tertiary business tenants were far pickier because of lower rentals. In the last few months we noticed the margin had expanded for the IT sector. The investment in infrastructure depends on how quickly the GDP grows and it will drive the pace of tier 1 and 2 cities development."

Khair Ull Nissa Sheikh, Executive Director, WTC Services & Board Member of WTCA agreed, "Indian real estate has become more consolidated organized and with economic recovery, recalibration of office space will happen. Logistics and industrial realty segments were most resilient to the disruptions and retail sector will regain speedily once lockdowns are lifted. For domestic and foreign investors, alternative investment is becoming more relevant than before. Commercial real estate gets more investment because the assets are classified as yield generating assets. Tier 1 cities with more grade A buildings garner more investments but with government focus on infrastructure development, tier 2 cities too will become a favourable commercial realty destination. For instance, many companies are moving to GIFT city in Gujarat and Greater Noida. A PwC report highlights that investments in commercial real estate in Delhi NCR with regard to new office space buying are rising by around 30% annually, especially in Noida."


VINAMRA SRIVASTAVA

ARSHDEEP SINGH SETHI

AMBAR MAHESHWARI

The office market in top eight cities recorded transactions of 22.2 msf from July 2020 to December 2020, whereas new completions were recorded at 17.2 msf in the same period. In terms of share of sectoral occupiers, Information Technology (IT/ITeS) sector dominated with a 41% share in second half of 2020, followed by BSFI and Manufacturing sectors with 16% each, while Other Services and Co-working sectors recorded 17% and 10%, respectively

REIT ON THE CUSP

Indian Retail Estate Investment Trust (REIT) has seen a strong rental collection of over 99 percent in the first quarter of the financial year 2022 (Q1 FY22), though their overall vacancy levels have increased by 100-200 bps QoQ. Analysts believe the increase in vacancy levels is due to the continued work-from-home measures, leading to occupiers putting off leasing decisions. According to ICICI Securities, from March 2020, the Grade A vacancy levels have risen by over 300 bps till June 2021. The vacancy levels have risen to 16.6 percent. In sync,

the portfolio vacancy levels rose on the same basis for REITs. The trend reversed slightly in Q1 FY22, while portfolio vacancy levels rose by 100-200 bps QoQ for Brookfield REIT, Mindspace, and DLF; levels remained flat for Embassy REIT.

REITs that invest in Grade A properties are DLF, Mindspace Business Parks, Embassy Office Parks, and Brookfield India REIT. While the former three have seen vacancy levels rising by 400-600 bps in FY21, Brookfield has retained occupancy levels in H2FY21. As per REIT managers, the leasing discussions that were on hold after the second wave have now been revived again. On the back of the economic recovery, the existing occupants are considering potential expansions and the tenants that were planning to surrender space earlier are now looking to retain and even expand their current space.

Vinod Rohira briefed, "Commercial real estate in India is predominantly driven by central business district demand. The large office parks offer an oasis of ecosystem that are at par with international standards for the global companies to work efficiently. REIT not only helps build a particular market dynamic by creating a strong environment of compliance and governance but also, being an asset management trust shares the assets with shareholders and unit holders. Mindspace Business Parks REIT was the second REIT to be listed in India. We expect many new REIT's to enter this market in the future due to the fundamentals of REITs which are extremely focused on compliance and governance mechanisms and management of assets with comprehensive health and safety facilities. Apart from institutional investors, there is a massive interest from private high network individuals to participate in REIT's. All these trends will create a huge opportunity in this segment."



KHAIR ULL NISSA SHEIKH

INVESTMENT TRENDS SHAPING OFFICE SECTOR

South India remains a favourable market for technology occupiers who continue to commit to space in the market. Bengaluru continues to lead the leasing activity with a share of about 43 percent, followed by Delhi-NCR and Mumbai with a share of 19 percent and 16 percent respectively, as per Colliers.

On the supply front, H1 2021 witnessed supply of about 12.1 million sq feet, a decline of about 53 percent from H1 2020. Although supply halved this year, it was still higher than the demand seen during the period, contributing to a further

increase in vacancy levels in addition to space rationalisation by occupiers across cities.

During Q2 2021, the IT-BPM sector continued to drive the major demand accounting for about 34 percent of the total leasing in the top six Indian cities although it came down from its share of 47 percent in Q1 2021. The average deal size in the IT-BPM is about 41,000 sq ft. The engineering and manufacturing sector also continues to have the second-highest leasing share in Q2 2021 as manufacturing companies bet on India to set up their global in-house centres.

Flexible workspaces accounted for 13 percent of the leasing in Q2 2021, up from a 5 percent share in Q1 2021. Hyderabad saw majority of the flexible workspace leasing in Q2 2021 followed by Mumbai with 60 percent and 20 percent shares respectively of the total space leased by flexible workspace operators, stated Colliers.

Commenting on the reported trends **Khair Ull Nissa Sheikh** said, "If we look at office assets offering 6-8% yield, Flexible office space is 12%, Data centres 14% and residential 1-3% yield. When it comes to development, properties like World Trade Center Noida which is the combination of office, residential and industrial, i.e. multiple assets clubbed together to generate high yields with better infrastructure are seeing great traction among investors as well as buyers and occupants. Hub and spoke model too is gaining prominence along with hotelization of office spaces."

Vinamra Srivastava pointed out that generalizing cities while analysing vacancy and absorption levels does not give a correct picture. "Cities are basically made up of micro markets, if you will look at data of three micro markets from three top cities of India for various Grade A spaces, the statistics will be very different. Occupiers will mostly remain in a wait-and-watch attitude over the remaining year 2021 before

While vacancy levels may rise further in Q2FY22 in commercial properties, this trend is expected to reverse from the second half (H2) of FY22 assuming a gradual return to offices.



renewing existing leases or leasing new spaces to avoid capex on offices that they might not use."

Arshdeep Singh Sethi expressed, "During the pandemic, investors did not shelve their investment plans but were put on hold. The institutional investors invest only when they can see a significant and constant growth in the economy and the sector. For example, due to the surge in e-commerce, warehousing sector is in demand amongst big companies. While the mood is cautious among the investors, they are optimistic of the growth of the emerging Indian economy and real estate sector."

Ambar Maheshwari agreed, "The investment community is very much aware that the slowdown in the leasing is a temporary phase. Once things return to normal, the economic growth will boost this sector due to the inherent demand."

Yash Gupta shared, "Paradigm shift is happening in the office sector. It will all now come down to efficiency, flexibility, engagement, location and

The top commercial real estate hubs are Bengaluru, Mumbai, Pune, Chennai, Gurugram and Noida. IT and ITeS sectors are among the prime drivers of overall leasing activity in these top cities.

sustainability of office spaces. If you cannot focus on all these five factors you cannot run an office portfolio. Technology plays a very important role in managing all such factors. I'm long term positive and optimistic for Indian office sector."

Vinod Rohira concurred, "India is at the forefront of providing the world, technology support services. Global technology companies are

setting up their centers in India and many others are shifting base from China to India as the country provides sophisticated workforce along with office parks and industrial parks to support their growth plans. "We will certainly see REIT's in every other asset class as it is a combination of distributable dividend and cumulative returns"

Neeraj Bansal concluded on a positive note, "The leasing momentum is expected to pick up at the end of 2021 with the increasing vaccination. The commercial real estate has shown resilience and will bounce back in H2 of 2021 as markets begin opening and offices reopen for return of employees. Warehousing and Data parks are the sunshine segments that have a substantial potential for growth and in attracting global investment."

The views were expressed during the VCWorld "Convergence" The Global Real Estate Investment Summit" organized By Realty+ in association With BW Businessworld

PROP-TECH

INVESTOR READY: TECH AREAS ATTRACTING FUNDING

INDIAN REAL ESTATE FOR LONG HAD BEEN USED TO TRADITIONAL WAYS OF WORKING. WITH THE ADVENT OF PROPERTY TECHNOLOGIES, IT HAS SLOWLY AND STEADILY MOVED ON TO INCORPORATING DIGITAL TOOLS. GIVEN THE SIZE OF THE INDIAN REALTY MARKET, THE OPPORTUNITIES FOR THE PROP-TECH COMPANIES ARE ABUNDANT AND SO IS THE INVESTMENT POTENTIAL.

Till a few years back, Proptech had not been able to raise funds like other technology sectors such as e-commerce and food tech because of the unorganized nature of the real estate sector. With the consolidation and maturing of realty space, the Proptech companies are gaining prominence and witnessing significant inflows of capital. As a matter of fact, despite pandemic prop-tech firms received investment of up to \$551 million in 2020, as per industry study. This has been the peak investments since prop-tech companies began entering the real estate segment about a decade ago.

There are now incubators, accelerators and angel investors that are helping innovators and inventors utilise technology to create sustainable and scalable businesses in the real estate industry mentioned, As a matter of fact, till 2016 investors wouldn't participate and realty firms were reluctant to take on board the start-ups. After five years, there are almost 2500 start-ups solving all kinds of problems and they are actively engaged with the realty companies in development fields of construction, management, sustainability, wellness all executed tech platforms. This shows the fast paced growth in this segment and investment opportunities.

Sandeep Sethi, Managing Director, JLL Work Dynamics, West Asia, JLL stated, "Indeed, technology is creating new opportunities in real estate as the prop-tech companies are tailoring their software and digital platforms for sector specific problems to increase productivity and innovate work within the industry. Globally India is among the top three in terms of investment in Proptech."

With a myriad of factors like rapid urbanization and digitalization, technology is playing a crucial role in even real estate investment segment offering tech-platforms to

retail investors for easy investing. While the technologies were already there, their adoption and implementation was accelerated during the pandemic. The financial troubles during the Covid-19 pandemic forced aspiring middle class and retail investors to look for new ways to grow wealth including Fractional ownership of property in commercial real estate.

Amit Ramani, Founder & CEO, Awfis Space Solutions Private Ltd concurred, "The ideas and digital platforms were already there but came into limelight due to the pandemic. For instance, now every company wants hub and spoke model of working that requires extensive use of technology, firstly for the employees to stay connected and secondly to enable remote working. Till now digital platforms functioned more like discovery platforms but, now they also provide digital transactions to close the deal. We can foresee REIT's in operation with the help of the blockchain platform. From an investor's perspective, they will deploy capital in the most relevant technologies, considering the contingencies real estate has faced in the past 12 months."

VMware Inc. is a cloud computing and virtualization technology company. **Renuka Rajagopal, Senior Director, Workplace, VMware | VMIInclusion India Co- Lead** shared her perspective, "We are working on various standalone applications like City navigator, Help desk with engineering system running at backend. Through all such apps our focus has been on how we can bring efficiency and flexibility in operations. So the investment should not only be in building applications or platforms, but also in the continuous journey and upscaling operations as well."

The fundamentals that have driven the India real estate growth story continue to remain unchanged.



SANDEEP SETHI



AMIT RAMANI

With changing needs of the realty consumers, advanced technologies like AI and VR have become prevalent. And owing to the unstructured nature of real estate, there is a demand for planned business information and data analytics. This has led to a crop of Proptech startups offering solutions to these problems.



RENUKA RAJAGOPAL



SANJAY DUTT

Proptech start-ups most likely to succeed and thus receive investment, will be those providing technologies that increase workplace safety, simplify virtual communication and improve employee experience.

But, today's market scenario is different from the traditional economic slowdown because of the work from home aspect. Proptech has got much deserved attention because of the pandemic and the rising digital platform usage. Technology provides investors transparency which helps build long-term relationship.

Undoubtedly, in the last 10 years the segment has gone from strength to strength. As traditional business models collapse, there are stronger than ever capital flows to Proptech. Few accelerators too are providing funding and mentoring targeted start-ups and technological innovators to bridge the gap between the built world and technology.

PROP-TECH VENTURES - HYPE OR REALITY

India's property technology scene is starting to gain traction as the country's growing real estate market and increasingly tech-savvy citizens create new opportunities. Moreover, real estate is one of the largest industries and the one dealing with high transaction and brokerage values, which demands technology intervention for transparency and efficiency. But, have the Proptech companies been able to address the sector specific challenges and is the realty sector players ready to invest in Proptech?

Sanjay Dutt, MD & CEO, TATA Realty And Infrastructure Limited was of the view that technology has now become an integral part of real estate and is not just a hype. "Those who do not adopt technologies will be left behind in the race to enhance their businesses. Artificial intelligence, IoT, Machine Learning are being used for qualified Lead generation and customer interaction. Design software, construction tech, BIM and 3D technologies have already revolutionized the realty landscape. Even the government is promoting digital India. RERA across states is continuously upgrading the system to communicate with the real

estate sector digitally. All such factors present a viable sector to investors for making fruitful investments."

From the initial resistance to the evolving changes and now the boost due to the pandemic, Indian real estate players from developers, brokers, investors and customers have come around to adopting the latest tech tools for the better good. Before the pandemic, technologies that were termed futuristic by developers and investors have now found ready acceptance. India's majorly young population comprises millions of nest first time homebuyers. They are tech savvy and active on social media and to reach out to them, developers have to be tech friendly. Industry experts are of the view that the growth of Proptech has just started and has immense potential in coming years.

Sanjay Dutt shared similar perspective, "Due to the pandemic realtors understood how Proptech will evolve in the real estate sector. In the next five years a lot of agent tech companies will be coming in this space. One thing which will shape up Indian real estate will be a change in the behavioural pattern of realtors and their open mind-set for adoption of technology. Real estate developers need to accept modern technologies widely in their projects. Proptech is a long term trend in this industry."

Amit Ramani added, "Big data and Blockchain that provide transparency in the process will completely transform transactions and many other things in the real estate sector. Artificial intelligence and machine learning will bring efficiency in the execution of construction and realty projects and it will fast track the process."

Renuka Rajagopal agreed, "Most of the investors have a long term perspective in terms of investment. Likewise, goals for technology have to be long term and should align well with the company's business. As the technologies change or get outdated fast, the prop-tech companies need to keep working to scale up and build

a sustainable product."

With the growing consolidation in the real estate and focus on regulatory compliances, technology is aiding the real estate industry in more ways than one as also throwing up more opportunities for investors. The PropTech segment will contribute huge profit to real estate. With the usage of Artificial Intelligence and other technologies to create flexibility and transparency in the business, PropTech has a bright future. In addition, the marquee campaigns of the government 'Digital India', "Global Housing Technology Challenge", 'Smart Cities', "IndiaChain", etc. are promoting the use of technology and making the access of technology easier.

Furthermore, the PropTech start-ups provide tangible savings and increase in company's revenues. Indian real estate invests about 1.5% of their revenue in technology, but it can provide deliver 40-50 percent operational sales with a quick ROI. We need to build an ecosystem of investing in PropTech.

Real estate players believe that technology has democratized real estate making it accessible to even a smallest retail investor. Lot of retail real estate investors do not have facilities like legal and technical evaluation, or data matrix, tech companies provide them the comfort of using a digital platform which will provide all the information to them on a click of a button.

According to **Sandeep Sethi** it's the consumer experience that drives the investment in PropTech, consumers being the newest stakeholders. "With the increasing demand for tech-enabled real estate platforms, we will see a significant momentum in the use of AI, Machine Learning and Robotic process automation (RPA) going forward. In fact, real estate is also applying PropTech to address environmental issues. The trend bodes well for the investors in PropTech."

According to industry experts, post Covid, technology will play a crucial role in real estate revival. Anything that helps to expedite sales cycles will thrive the market. Block chain is not very far from entering the real estate and will be a major disruptor for the sector.

TECHNOLOGIES TRANSFORMING REAL ESTATE

While the PropTech sector continues to evolve quickly, it's not without its challenges. Cultural norms take time to adapt and most Indians are still resistant towards completing a transaction entirely online. However, developers are now using sophisticated PropTech tools like virtual reality, 3D walkthroughs, drones and artificial intelligence to help potential homebuyers virtually tour their desired property and be aware of its neighbourhood while sitting in the comfort and safety of their homes. These easy-to-use apps are also helping many customers to shortlist and book properties online, based on their preferred location, price and amenities without any physical visit. These apps provide up-to-date information and laws regarding properties, which serve as efficient tools for investors and end-users to make informed decisions.

The real estate professionals agree that with buyers mind set and buying patterns changing, the real estate community too has changed to reach out to potential customers through tech interventions. In the

current scenario, many a prop tech providers are working with top developers across India to provide solutions in various mediums where they can improve their marketing and communication to the customers. The era of marketing started with using audio based content then text, images and video based communication and now the world moving from 2D based content to 3D based content.

3D scans are becoming generic. With our smartphone we can capture things and scan them into 3D. We can capture our surroundings and then through 3D scan the unit walkthrough will be ready. Many home buyers ask sales representatives to show flat on video call as well. With the use of cloud computing, companies can deploy very high quality real estate applications and show the customers videos, images and walkthroughs of the property remotely.

There are now available 3D digital sales experience model, in which one can merge three technologies to create an entire 3D visualization of the product, combine it with the virtual site visit and connect it with digital payment step. This platform has a live video and messaging option for interaction between sales representatives and customer. This completely replicates the physical show flat digitally along with adding the digital transaction.

Most of the technologies aim to reduce the customer acquisition cost for realtors. The slowdown in real estate prompted the tech firms to address the problems in the process of home buying and in making customer journey exciting to realize sales. Customers usually interact with channel partners, and they need to have tech tools for visualization and mapping of each project with surroundings on maps digitally. Customers also faces the problem of having a lack of understanding of loans and the procedure. Here the Fintech and PropTech companies can work efficiently to guide the



customer. After RERA the real estate market has become more focused on quality and timely delivery of project. Con Tech comes in picture here to aid projects faster construction. Furthermore, CRM platform should be used by the sales team, and later this data can be used to analyse the consumer behaviour and buying patterns. One of the recently introduced solution help realtors plan their marketing mix efficiently. The platform tracks ROI via each medium, be it ATL or Digital and can map variables for every campaign running on digital platforms which can affect the CPL (Cost per Lead) and Quality of Lead via an ongoing campaign. There are system-generated nudges that help realtors make an informed decision based on their historical spending patterns that helps them plan their next media mix to optimum driving down the acquisition cost of customers.

Sanjay Dutt sharing his advice with the developer's community stated, "Realty firms big or small can no longer afford to not adopt technology tools. Each developer can decide the priority of which technology to invest in first as per

With a total investment of USD 2.4 billion, PropTech investments have grown by CAGR of 57 percent (2010-2020), compared to a 10 percent growth in investments received in the overall real estate sector. The average deal size for investments in online business platform grew from USD 4 million in 2015, to USD 70 million in 2020.

the business scale and requirement. As the organization and revenue grows one can keep investing in more tech tools. It is imperative that the companies using technology will have an advantage over those using traditional sales and marketing

model as they will be able to reach the customer much before others and convert lead into sales quicker." Giving an example of human aspect of technology he shared, "Across Tata Group, we give a lot of weightage to people that includes our customers, vendor, partners and employees. In the difficult times of pandemic when most were working remotely with no social contact with friends and colleagues, we created an intranet for the Tata Group where they could all share their personal stories. This in my view is the best use of technology."

Understanding the importance of PropTech in these unprecedented times, the Ministry of Housing and Urban Affairs, along with the National Real Estate Development Council has recently launched an e-commerce portal, where the country's residential developers will offer 270,000 'ready-to-move' homes for digital sales. With the fast track developments in the prop-tech segment and the recognition as well as the speedy adoption by the realty sector has fueled the investment flow in this segment and is predicted to grow year on year.

TECHNOLOGY ENABLED DISRUPTIONS ATTRACTING INVESTMENTS

Riding on the tech enabled disruptions, the Indian real estate sector is witnessing a significant rise in investments flowing to tech-based real estate start-ups in construction technologies (ConTech); property technologies (PropTech) and digital business platforms.

Adopting technology interventions, embedding technology enabled construction efficiencies and enabling ICT-based infrastructure solutions is redefining stages of the real estate business life cycle across financing, construction, operation and management, marketing, and transaction stages.

Land acquisition: Drone mapping & Geographical Information Systems in land maps, Blockchain and E-MIS are streamlining land records.

Designing: Building Information Modelling (BIM) used in designing efficient buildings, and AR / VR technologies offer better means for collaboration and minimize design & construction related conflicts

Construction: Use of Lean Principles, Cloud based Project Management tools enable real time monitoring and data analytics. Use of interventions such as internet of things, smart sites technologies etc. are enabling efficient utilization of resources and resulting in time and cost savings.

Investment in prop-tech companies rose last year amidst a surge in adoption of virtual platforms for real estate marketing during the COVID-19 pandemic. This has been the peak investments since tech-based startups in India began entering the real estate segment in India, starting 2000s.

Con-Tech: Demand for faster, more efficient and cost-effective construction has resulted in increased usage

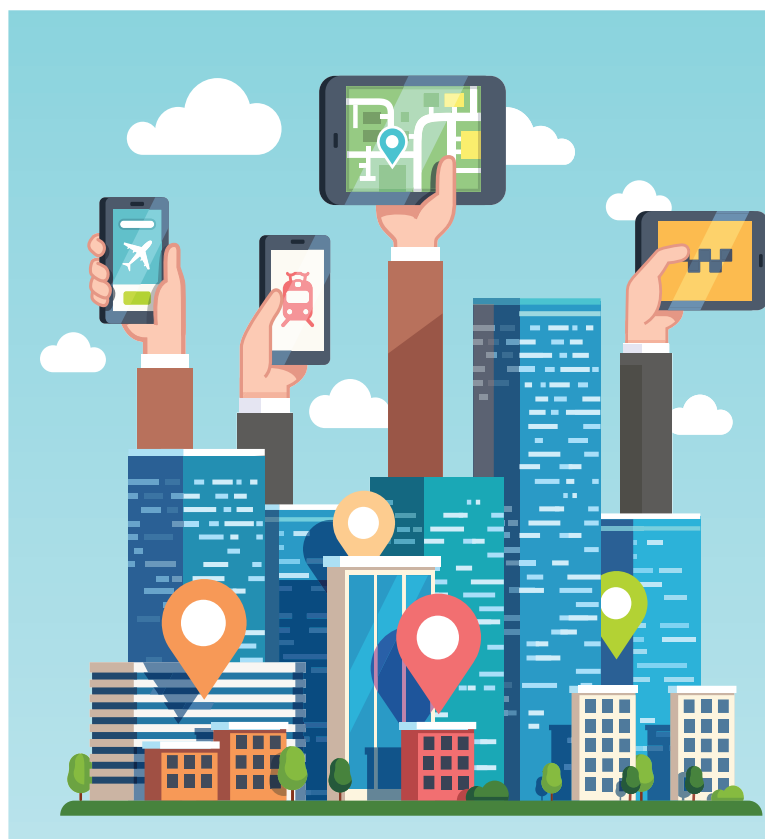
of innovative construction technologies. Considering scalable technology solutions is a specialized task, several start-ups have emerged in the ConTech space, leveraging on available investor funding to grow and partner with real estate developers and contractors for collaborative construction delivery models.

Digital Business Platforms: Additionally, digital real estate platforms are witnessing increasing market interest from end users and financial investors as e-commerce business platforms evidences positive growth.

Prop-Tech: The focus has now shifted towards online marketplaces, integration of digital technology, and innovative business models, leading to the emergence of PropTech industry.

The prop-tech segment is likely to see a tremendous boost in the near future amid the growing use of technologies, including virtual reality, drones, big data, and artificial intelligence in home purchases.

References: Knowledge Report by NAREDCO & KPMG and Report by Housing.com



**SO FAR \$2.4 BILLION HAS BEEN
INVESTED IN INDIA'S PROP-TECH
INDUSTRY ACROSS 225 DEALS.**

FEATURE



INVESTORS BETTING BIG ON WAREHOUSING

FACTORS LIKE THE COUNTRY'S CHANGING TAX REGIME, GROWTH ACROSS MANUFACTURING SECTOR, E-COMMERCE AND THE EMERGENCE OF ORGANIZED RETAIL ALONG WITH TECHNOLOGICAL ADVANCEMENTS IN THE SECTOR ARE DRIVING THE INVESTOR'S INTEREST IN INDIAN WAREHOUSING.

At present, warehousing in India is mostly concentrated around tier-I cities, such as Bengaluru, Chennai, Kolkata, Mumbai, Delhi-NCR, Ahmedabad, Pune, and Hyderabad. However, the rising e-commerce activities in the tier-II and tier-III cities present future growth potential for the warehousing sector in the coming years. Also, the organized warehousing space per capita in India is significantly less at present and thus, presents an opportunity of expansion and demand from the burgeoning industries, e-retail and cold chain segment in the post-lockdown period.

According to Colliers, India's industrial and logistics warehousing sectors are garnering significant interest from institutional investors. Led by robust demand from e-commerce and other consumer-led occupiers, Colliers expect the industrial and logistics sectors demand to be stronger than other asset classes. **Piyush Gupta, Managing Director, Capital Markets & Investment Services, Colliers** stated, "During 2021, we expect increased formation of joint ventures between developers and investment funds to expand and develop industrial parks, and fulfilment centres in Tier I and II locations. Therefore, demand for core assets located in strategic locations and enjoying easy connectivity to ports, national highways and airports will likely remain strong."

Rajat Garg, Head of Investment ESR India sharing his views said, "Our business at ESR is driven by end-user consumption and the demand from industries and manufacturing. With the phasing out of the lockdown and restrictions on transport activities, manufacturing activities are picking up in Tamil Nadu and Maharashtra. E-commerce companies, Electronic engineering, Telecom, Renewable energy companies are looking for huge warehousing spaces for expanding their operations across India."

Yash Ravel, Executive Director, Fund Management & Corporate Strategy, Welspun One shared that demand from cold chain segments is growing as it needs temperature controlled warehouses. "One can expect to see a significant demand for fully mechanized and automated warehouses from this vertical in the coming days. However, rising price of raw materials especially steel is becoming a big challenge for the segment as most of warehousing construction involves steel."

R K Narayan, Chief Operating Officer, Allcargo Logistics and Industrial Parks agreed that in the warehousing sector there is a lot of



PIYUSH GUPTA



RAJAT GARG



YASH RAVEL

demand coming from manufacturing sector and institutional investors continue to be bullish on warehouses to deploy their existing dry powder. He said, "Apart from the rising construction cost, the challenge also

Occupiers have showed a marked preference for Grade A properties. 65% of all transactions during FY 2021 were in Grade A properties with the exception of Bengaluru and Ahmedabad, more than half the area transacted in all the top markets occurred in Grade A properties.

includes delay in land acquisition and obsolete labour laws. The government should adopt investor friendly measures like tax incentives, capital subsidy and transparent land acquisition regulations to bring India at par with global warehousing segment."

Rajani Sinha, Chief Economist & National Director – Research, Knight Frank (India) Pvt. Ltd. points out that primarily lack of integration with global supply chain is where India is losing out to other countries. "For instance, Vietnam has trade agreements with all the major multinational companies as they have investor friendly trade policies. India itself has a huge consumption market and we also need to focus on our own market otherwise other countries are waiting to get into the micro markets of India. Furthermore, technology adoption in the warehousing segment is still very low in comparison with other developed countries. Institutionalization of this segment and automation in warehouse management is a must."

Knight Frank India projects that annual warehousing transactions for top eight Indian cities (primary markets) will grow at a compound

annual growth rate (CAGR) of 19% to 76.2 mn sq ft (7.08 mn sq m) by FY26 from 31.7 mn sq ft (2.95 mn sq m) in FY21. As per the projections for the next 5 years, e-commerce segment is expected to take up significant space estimated to be 98 mn sq ft (9.1 mn sq m) approximately registering an increase of 165% from the preceding period of FY 2017 – 2021. Third party logistics (3PL) and other sector companies are expected to take up 56% (83 mn sq ft) and 43% (53 mn sq ft) more space respectively, over the same reference period.

TECHNOLOGY THE GROWTH DRIVER

Till recently, the warehouses were mostly labour intensive. However, the pharmaceutical, cold chain, and fulfilment centres by E-commerce majors, the biggest warehousing clients as well as the safety protocols brought by the pandemic have pushed the warehouses to accelerate automation and modernization of facilities.

Rajat Garg concurred, "Warehousing is a very standardized product in comparison to hotels or shopping malls and developers and operators need to focus more on adopting technology. For instance, ESR India Smart App monitors movement of every truck which enters the vicinity and thus guides them to where to park. It also directs the driver where to unload goods in which warehouse. Facility or warehousing operators use this app because it simplifies a lot of work."

Yash Ravel added, "Technology definitely is the need of the time. We use cutting edge technology for the industrial park management to provide better facilities to our tenants. Amazon brings in a lot of high end technology with them wherever they set up their facility. Prop-tech start-ups too are coming in this sector to implement their technology to create an efficient and sustainable work environment."

R K Narayan said, "As operators we try to provide tenants with good



R K NARAYAN



RAJANI SINHA

Office assets accounted for 35% of the total investments in H1 2021, followed by industrial and warehousing assets with a share of 27%. Investors are viewing the current scenario as an opportunity to snap up properties at attractive valuations.

facilities such as installing solar panels to reduce energy cost, monitoring water and electrical consumption and installing smart devices to track people and goods movement inside the facility. On the development side, we are building facilities at many locations and bringing in efficiency in development and facility."

Rajani Sinha expressed, "India has a huge population residing in tier 2, 3 and 4 cities and they share an aspiration to buy popular products same as in bigger cities. These consumption patterns will enhance the warehousing sector. The strong domestic consumer base and supply chain disruptions from the pandemic have intensified the need for more institutional players in the warehousing segment which will lead to greater advancement in technology and automation of facilities as well as processes."

Piyush Gupta stated that he year 2021 has fast-tracked the adoption of digital technologies in real estate. "In the warehousing business, focus on productivity, efficiency, and digital technology deployment with a rationalised profit and cash-flow model is what will define the successful players."

INVESTMENT TRENDS

The warehousing and logistics sector has been the biggest beneficiary during the pandemic and attracted total investments of over \$1 billion during Q2 2021. Warehousing accounted for 55% share, while retail formed 20% of total investments during the quarter. The key trigger for the institutional interest in the sector is the consolidation of assets due to implementation of GST, industrial sector boost and third party logistics players looking to scale up

Rajani Sinha expressed, "Participation from investors has come mostly in the form of operational assets owned by them or in the land banks available with them. The other way in which strategic investors have been participating in

the sector is by contributing towards land acquisition and construction capabilities where financial investors form platforms with strategies such as Embassy Group and Assetz Property Group. REIT is an efficient vehicle for holding such assets, but for it to become viable in India we still lack large scale commercial assets that can be monetized through REIT. It will take more than three to five years to reach the stage where REITs would be possible in this market."

According to **Rajat Garg**, institutional investors are looking at this segment as a three to five years reallocation of capital. "Industry players who think they were underweight in terms of having warehousing assets are trying to allocate their money in the warehousing segment. Land acquisition remains difficult and challenging in tier 1 or 2 cities. We are very bullish on the warehousing market. A lot of investors want 16-18 percent post tax returns. They want to also focus on pension funds, insurance funds, and long term core asset ownership. In the next three to five years we will see a shift from development to core long term asset ownership. I'm fundamentally confident that in the coming two to four years two large REIT's will enter this market. I think Industrial listed REIT's will give more than 70 percent profit."

Yash Ravel stated. "Whether you are raising capital from local or institutions, I think the expectation of returns from the real estate sector continues to be 20-30 percent. However high land prices create a difficult situation for operators as tenants ask for affordable pricing and operators have already invested so much money in finding the right land parcel in the right location. Having said that, Welspun One Logistics Parks report estimates an increase of 10% in Y-O-Y demand for Grade A facilities to a new total of 35% to meet additional unmet demands,

Warehousing and logistics emerged as the most preferred real estate asset class for institutional investors, pipping the all-time favourite commercial office segment for the first time during April-June 2021. The segment attracted an all-time high of \$743 million (more than Rs 5,500 crore) in investments, accounting for more than half of the \$1.36 billion attracted during the second quarter.

as opposed to the earlier predicted industry demand of 25%. This trend makes warehousing sector a lucrative investment avenue for the investors. Moreover, in comparison with other asset classes, warehousing has evolved faster into a matured market. Development cycle for warehousing is shorter than the commercial office and retail asset classes."

R K Narayan added, "It is true that return expectation from a prime location warehousing is difficult to match due to land price but those in tier-2 or 3 cities offer better returns. Also, presently the sector provides better returns than residential or office segments. We still have a lot of penetration to achieve from the e-commerce side. It's up to the operators how we can improve our

management skills and provide better technology driven facilities. Major global funds have invested with warehousing developers and operators as scale and regional footprint are key differentiators in the sector."

Piyush Gupta on a positive note shared that the confidence of investors to invest in Indian real estate has strengthened in the past few months. "The investment trends reflect an interest in broader classes of assets and structures. This includes formation of platforms and acquisitions with development risks and development financing in warehousing as this asset classes reflects long-term stability, and sustainability. Furthermore, as companies based in China look to expand their operations outside, India is emerging as an attractive manufacturing destinations which will further boost demand for warehousing in the country."

Indeed, the warehousing sector is expected to grow manifold, despite the challenges. Most companies are now focussing on core business products and prefer to outsource warehousing operations as also maintain "Asset Light" model. This gives a huge opportunity to third-party logistics (3PL) companies that can provide them with complete solution. Also, in the pandemic they have realized that a single large warehouse can be risky to their supply chain. They are plan to cover key micro-locations from a consumer perspective with smaller or multilevel warehouses.

As per experts, given that the country still has a very limited number of technologically advanced warehouses, it will be one of the first to recover from Coronavirus impact, attracting huge capital, as investors shift to this resilient asset class.

The views were expressed during the VCWorld "Convergence" The Global Real Estate Investment Summit" organized By Realty+ in association With BW Businessworld

THE VOICE OF REAL ESTATE THE VOICE OF REASON THE VOICE OF EXPERIENCE

FOR THE PAST 14 YEARS, REALTY+ HAS BEEN AT THE FOREFRONT OF NEWS & STORIES INFLUENCING THE WORLD OF REAL ESTATE.

Realty+

Benefits of Subscribing

- Fresh insights from leading real estate professionals
- A ringside seat to major stories affecting Indian Realty
- Access to trend reports, forecast reports and market research
- Curated articles on architecture & interior design
- An overview of upcoming real estate projects

SUBSCRIBE NOW TO THE ULTIMATE MONTHLY RESOURCE FOR ALL THINGS REAL ESTATE

Serial No.	Period of Subscription	Magazine cost - R 80 each	Discounted Price	Courier Cost	Total cost inclusive of courier + discount
1	One Year - 12 issues	₹ R960	864 @ 10% Discount	288 for 12 issues	₹ 1152
2	Two Year - 24 issues	₹ 1,920	1536 @ 10% Discount	576 for 24 issues	₹ 2112
3	Three Year -36 issues	R2,880	2016 @ 10% Discount	864 for 36 issues	₹ 2880

I will pay through ☐ NEFT ☐ Cheque

Cheque No. _____ Bank Drawn _____ Dated _____

Name: _____

Courier Address: _____

Mobile No. _____ Tel No. _____ Email Id: _____

Cheque to be drawn in the favour of **'Mediaset Holdings'**

5A, Diamond House, 35th Road, Linking Road, Opp. Linkway Hotel,
Bandra (W) Mumbai - 400050.

For subscription related queries please contact Sanchita Shinde +91 98203 36144
or Email us at realtyplus@exchange4media.com

**SUBSCRIBE
NOW**



**DRAWING
BOARD**

INFLUENCES OF TECHNOLOGY ON ARCHITECTURE

WHAT IS ARCHITECTURE – ART OR SCIENCE? WE ASKED THE EXPERTS. AND THE UNANIMOUS VIEW IS THAT FOR AN ARCHITECTURE TO BECOME AN ART, IT FIRST HAS TO FULFIL THE REQUIREMENTS OF SCIENCE. MORE RECENTLY, TECHNOLOGY HAS CHANGED THE FORM AS WELL AS THE FUNCTION OF ARCHITECTURE.

BY: SAPNA SRIVASTAVA

Evolution is a process that is constant and we need to adapt to the changes to make our life simpler. Indeed technology affects the way architects design buildings and clients experience the design process. But, does design shapes technology, or technology influences design?

Sanjay Wadhwa, Director, SWBI Architects said, "In all sensitively designed projects design and technology intertwine with a singular focus but sometimes they do diverge and are at cross purpose. Success of a building lies in creating a harmonious balance between the ambition & aspiration of design with the dictates of technology. While in pure ecological terms the traditional construction materials & methods such as earth, timber and bamboo perform far better than the alloys and aggregates of so-called high-tech, but they do not pass the bar, at so many other levels. Fortunately in the modern era, the mantra has been to create more with less, which is the backbone of ecological sustainable architecture. Building projects consume 50% of our material resources from nature, however help is here in form of cutting edge materials like Self-healing concrete, Hardwood cross-laminated timber, Bioplastic, Homeostatic facades, Artificial spider silk, 3D-printed graphene & Aerographite. Also, the design using recycled materials is equally important. Similarly, 40% of CO2 emissions come from buildings. This percentage outstrips both the transportation and industrial sectors of society. But with the implementation of IoT, we can reduce waste by using sensors & detectors to turn off machines and HVAC systems, which will have a major impact on energy consumption."

Babu Cherian, Principal Architect, BCA Architecture added, "Technology is not always about the modern and latest techniques and methods, but also about people's mind-set and concern humans have about the earth. Smart appliances and energy equipment are brought into use that drastically work towards energy conservation. A design can also be categorised into an eco-sensitive one, just by considering its construction, operation, maintenance and even its demolition. If these processes can be executed without affecting the environment, then the technology can be called a perfect 'compadre of architecture.'"

Rahul A Bendre, Principal Architect, ABC Design Management expressed, "The number of software available in the market to assist a designer in presenting his thoughts are only increasing by the day. Virtual reality and augmented technology makes the client experience a near real life feel sitting far away. With the use of 3D printing machines you can create just about anything. Platonic Arc one of the first 3D Printers for architects converts simple AutoCAD files into 3d printing. Home automaton makes it easy to control your space even remotely, so technology not only assist architects in building efficient durable designs and structures, but also provides complete flexibility to end user. The use of CRABOT which are robotic hybrid cranes help in construction and for limitless, easy, and affordable reconfiguration of space throughout the building's life. The use of solar energy in

a right way can create wonders in eco green buildings. Such ideas as ecological replacement scheme or ecology integration uses traditional concepts of natural landform integration, natural orientation and effective methods of harnessing the climatic resources like the sun and winds. Such scheme breaks down the modes of building material selection and application to suit geographical and climatic conditions."

Ranjith K Kartha, Director & Principal Lighting Consultant Veda Lighting Design & Systems (P) Ltd said that in the interior design, new materials and solutions define how the next level of designers perceive a space and design for their clients. "Essentially, the design problem comes first and then along the process of finding a solution, a technology emerges. When it comes to design it's the user that is at the centre of the ecosystem. Specifically to Lighting, it shapes the space, it captures attention, it motivates, it invigorates. When we design for humans, I think the starting point itself is environmental consciousness. It is important to achieve the right balance. For example, a few technologies that have become integral to our practice are, using occupancy sensors to design safer spaces, using dimmable lighting controls to design spaces that are welcoming and cosy, using IoT technology to create real time responsive lighting in offices, saving energy and even monitoring people movement, which in turn can control HVAC systems and using tunable white technology that can automatically change light spectrum in sync with our circadian rhythms. These are a few of the interesting technologies that are affecting how design intents are getting redefined."

Manish Kumat, Founder & Chief Designer, Manish Kumat Design Cell shared. "If we speak of technology in respect to architecture, it has transformed the role of the architects in becoming more broad-based that helps in designing ecologically sensitive buildings which are cost



"In buildings, wellness is the new sustainability. The goal is to make our built environment more physically healthy for people who stay in them. The concept of sustainability extends to development related to smart buildings and healthy communities, which could support sustainable living, meeting human needs and ensuring equity,"

Rahul A Bendre

efficient, sustainable & close to nature. This integrates the building industry to other industries without losing relevance. Big commercial projects have a huge demand for air conditioning and electrical loads. We try to promote buildings, which are naturally ventilated along with air-conditioning. Some of the techniques are- Use of occupancy and day light sensors, Double glazed glass units, to reduce heat and increase light transmittance, designed differently with different values for different directions, Efficient HVAC (VRV system) with maximum coefficient of performance, Water saving techniques, Utilization of renewable energy and Solar with Heat pump."



"From my philosophical perspective, we are at a technological frontier where we are headed towards automating everything and anything around us. Will there be human centricity anymore? Will the world have human qualities anymore? What would be left for us to do?"

Ranjith K Kartha

TECHNOLOGIES AT THE FOREFRONT OF DESIGN & CONSTRUCTION

Digital Transformation is completely disrupting design & construction. Some major technological influences are by the BIM, 3D Printing, etc. Moreover, technological and market disruptions are transforming how the energy is created, stored, and distributed. Rightly so, ecology and environment are like a tree with architecture and technology its two branches.

Babu Cherian stated, "In architecture, technology is not just the software or the applications, even the basic necessities of design and drawing like a pencil, set square, t-scale are all part of this technology that helps in architectural development. Virtual reality is an advanced version of development where people can



“Advanced building materials and systems focus on ensuring that the processes do not tarnish or blemish the environment.

Nowadays new technologies not only save time and energy, but also promote waste reduction, recycling of materials and conservation of fossils,”

Babu Cherian

experience a virtual walkthrough inside a building. This helps the clients and the designers understand every aspects of the design. BIM helps in amplifying efficiency of the whole process of design and construction, saves time and enhance even minute and intricate details of a design, while 3D printing helps in curtailing manual effort and time drained for model making.”

According to **Sanjay Wadhwa** his commentary is more focused on design. “The main technologies which are defining today and will shape tomorrow are – Technologies that support remote & hybrid working that is moving towards what is now being called “tech-parity”, wherein people doing WFO & WFH enjoy the same online collaboration experience & appearance. Secondly, smart building



“The benefits of a resource efficient building are many. The main challenge is the limited awareness among the citizens and many perceive it to be an expensive option. The biggest factors holding back green building adoption in India is lack of skilled experts and manpower. Also lack of government policies & incentives in promoting such buildings,”

Manish Kumat

systems: that have been taken to a level where at a dash board one can virtually have the “Digital twin” of the entire building on a BIM platform. Tech enablement in buildings will be defined at two levels – Operational Efficiency & enhancement of User experience. The former deals with energy monitoring & facility control through digital twin, smart office sensors for space monitoring, smart restrooms & smart cafe, parking & elevator management and the latter maps the entire journey from home using smart shuttle system to booking desk, standardizing coffee mix, navigating the indoors, locker management, visitor & meeting room management etc. Thirdly, with



“In workplace design domain, it’s completely a user centric approach. Wellness is closely linked with advanced systems integration from monitoring IAQ, to glare free lighting, mapping occupancy levels, achieving operational efficiency to correct acoustic levels enhanced by content soundscaping like infusion with nature based sounds, navigational ease and extensive deployment of Biophilia & Green Concepts,”

Sanjay Wadhwa

ever increasing awareness amongst the users, the need for design professionals to justify the use case of green technologies in terms of ROI and similar calculations are fortunately fast diminishing. Industry is witnessing an upward surge in investment in green technologies primarily centred on creating Net Zero buildings.

Rahul A Bendre enumerates three technologies. “Robots, drones and autonomous equipment’s have entered the construction industry and shall soon rule it. Drones assist in land

survey building inspection monitoring site activities visual presentation and progress discussions with clients etc. On the other hand, robots have increased the efficiency precision and progress speed of work. To add to it we have autonomous equipment's that don't need an operator like dumper volcador painting drone etc the future is fast changing.

Also, Powerwall digitalized masonry and more such materials are blending with technology. Powerwall, a compact, lithium-ion battery pack will allow residents to autonomously consume energy by drawing from their own sun-powered reserve. Digital fabrication and automated construction processes are now being looked at in place of masonry walls. The ongoing evolution from centralized to distributed power, including innovations such as hybrid photovoltaic plus-storage and mini-grids, have enormous potential to broaden access to clean energy. Digitalization of the energy system and the proliferation of electric vehicles, which can be a distributed energy resource, will be central to energy sector transformation. And floating storage and regasification units are an innovation providing natural gas power in emerging markets. Lastly, augmented technology and 3D printing have taken designing visualization to another level. 3D printers are also being used to make some of the finest creations with Portland cement glass etc."

Manish Kumat concurred that drones are the most widely used emerging construction technology and the upcoming technology of 3D printing would challenge the major design process. "Because the process is based on CAD, any product alterations are easy to make without impacting the manufacturing cost in 3D printing. Additionally, modular construction can come into role when the construction has to be done within a given time frame with more accuracy and less site work," he added.

The reduced energy consumption & controlled material usage, when combined with an architectural design which envisages in its program - generating energy from renewable sources using Solar, Wind and even Piezoelectric is an ideal urban setting. in this scenario, we might soon design buildings that move and change according to human habits and weather patterns and deploy technology in form of internet of things, that will enable us to move and monitor our buildings to achieve the end goal of creating a responsible & responsive built environment.

Ranjith K Kartha believes that sensors are a big part of lighting design and control. "The capability of sensors could get better and integrated with other building services to control lighting, surveillance and security, energy saving, human recognition, etc. Virtual Reality / AR have already made inroads in big architectural firms and help understand and communicate design better. In lighting, its importance will be felt. Applications in Lighting will move beyond architectural spaces, and as already seen it's very prevalent in horticulture, sleep therapy, treatments for dementia etc. 3D printing could help integrate luminaires deep into

architecture. Artificial intelligence & machine learning could disrupt how we look at lighting a space. Who know, next might be drone luminaires that follow you around to your bathroom and garden!"

ADVANCED BUILDING MATERIALS & SYSTEMS FOR WELLNESS

The whole intent of advancement in building systems is to enhance the quality of life and experience of users in a built space. Sustainable living can be achieved through the adoption of smart technologies into our living spaces, wherein intelligent computing could support people's activities, or the adoption of advanced systems into our community, wherein inhabitants' wellness could be promoted.

Advanced building materials are a new generation of construction materials that demonstrate exceptional properties, making buildings and infrastructure smarter, more sustainable, energy-efficient, and resilient such as:-

- Human centric lighting designed as per the use of the building space. Factoring the light temperatures, voltage and the fixture type can enhance the wellness of building.
- HVAC with Fresh air system- accomplishes two primary indoor air quality goals - pressurizing a building and increasing indoor air quality by diluting polluted or stale indoor air.
- Low Volatile organic compound (V.O.C) & lead free paints with heat guard technology can keep building cooler. Also, Double Glazed Units (DGU) windows consist of a layer of inert Argon gas sealed between two layers of glass that creates nearly twice the insulation as single glazed units.
- P.E.X. (Cross Linked Polyethylene) Plumbing is flexible, resistant to scale and chlorine, doesn't corrode, is faster to install than metal and rigid plastic and has fewer connections and fittings. It eliminates the health hazards. And water flowing through P.E.X. does not cause carcinogenic properties.

FUTURE TRANSFORMATIONS IN USE OF BUILT SPACES

Built spaces usage pattern has undergone a sea change. Especially in the last two years, the future changes in the built spaces are quite evident. With the impact of the pandemic, humans are constantly finding solutions to be able to carry on with life by adapting to changes. Most cities are witnessing internal migration and reorientation and architectural planning is witnessing a major change.

As per **Sanjay Wadhwa**, "Occupancy controlled spaces with physical distancing will become the norm. The metrics of design in terms of square feet per person has had a paradigm shift already. Also more and more people now want to spend time in outdoors, which has taken a completely new definition and use case of working, eating, drinking, training etc."

Babu Cherian agreed that there will definitely be a decline in sophisticated designs like enclosed spaces in offices or even an auditorium. "Safety distance and separations will restrict the design requirements and client needs. Virtual platforms can help in balancing the isolated concentration and productivity, but may reduce the value postulation of shared interactive workspaces. Hand free installation and equipment, UV sanitisation, use of anti-bacterial fabrics and paints, etc. may get used extensively. Air-conditioned rooms may also be designed in such a way that the room is properly ventilated ensuring unhindered air circulation and sunlight."

Rahul A Bendre was of the view that work from home has led to home renovations for a home office and taking vacation homes in nearby destinations to enjoy the perfect balance of nature and work life. "The change one can forecast in designing a new space, is a study area which is sound proof."

Manish Kumar added, "In built spaces, quarantine rooms will be planned with proper ventilation and

3D printers can be used to create buildings, bridges and homes. It is fast, inexpensive and can be used to create strong structures. It's only a matter of time before architect's plan for use of 3D printers in everyday building design.

a connected open space as also, convertible room/ guest rooms that can be transformed into a hospital space with a plug and play system. The definition of city- centre is also changing. People living in the core/ dense part of the cities, now want to move out to suburbs. Affordable and spacious with amenities like an additional room for WFH (work from home) equipped with all digital solutions and open areas in terms of gardens and walkways will become major part of planning."

Ranjith K Kartha feels that the pandemic has helped a lot of people relook at their lives and purpose. "I think our relationship with everything will change. How, what and where we do things will change. Remote work, hybrid work will be more common and offices will get more casual for the service industry. I think change will be slower for construction workers or the manufacturing sector. However, the digital tsunami will affect everyone now or sooner."

BUILDING MODERN & COMPLEX YET LOW-ENERGY STRUCTURES

At the very first instance the concept of building modern & complex structures using low energy to construct appear to be a bit oxymoronic in nature, as complex problems can rarely be solved by simple fixes & formulas. But, with

growing concerns for the environment and climate change, there has been a focus on the way new structures are commissioned and built; particularly in their use of energy and resources.

Sanjay Wadhwa stated, "The biggest challenge is the budgeting, as the current available technologies have yet to hit the mainstream and be affordable to deploy. A long term vision is required with the investors looking at reaping rewards & returns only after an extended period of time. The second is the limitation of available technology itself, which is at research stage. Various business groups and entrepreneurs are working towards solutions, technologies & materials to cater to this fundamental Ask of creating Exciting Architecture which uses least energy to build and run. One can find a parallel in the works of the likes of Buckminster Fuller and Frei Otto of creating a style of High-Tech which epitomizes the "Techno-Eco" approach to Architecture."

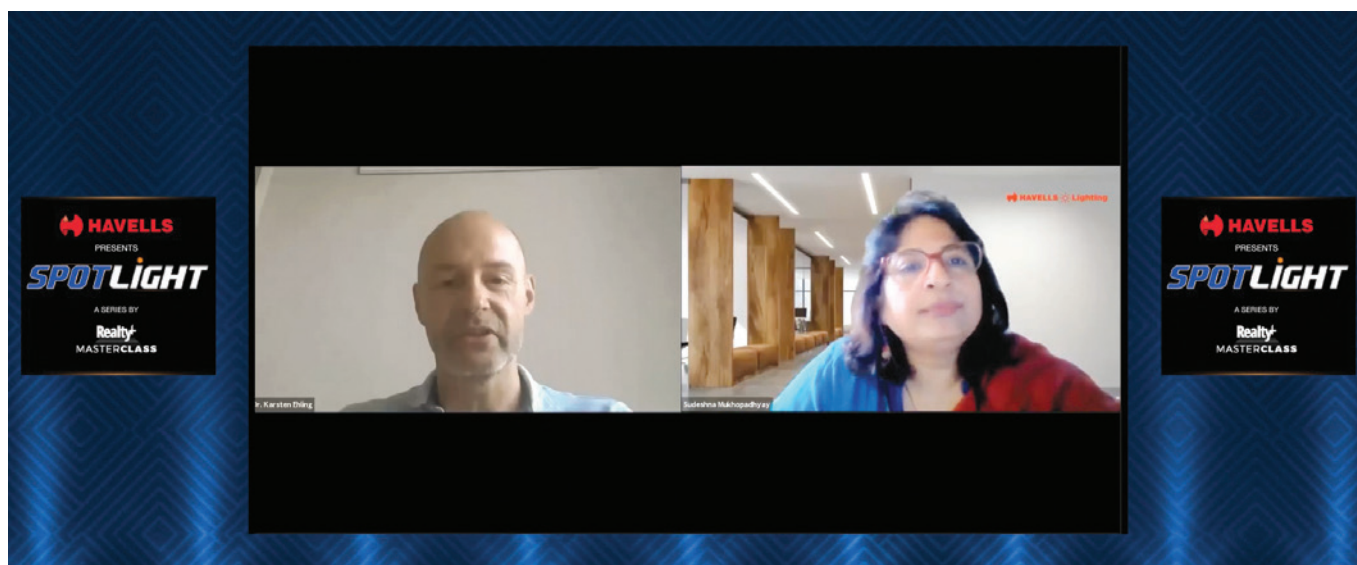
Babu Cherian said, "The main challenge faced by the designer is satisfying the site conditions without compromising client needs. Even if the designer wants to reduce the use of resources to make it a sustainable project there are some restrictions that occur either by the requirements of the client or the existing site conditions. The opportunity of building a modern resource efficient structure is the competence and efficacy of design and the designer."

Rahul A Bendre shared, "One way to make changes in the buildings of today and the future is to incorporate green building practices. Green buildings often conserve raw materials, incorporate green products and reduce or recycle waste; they are designed to reduce storm water runoff, use less energy and water, and use renewable energy sources. These cost more so if the government gives good incentives like Renewable energy credits on carbon offsetting to builders who follow all these norms and citizens who purchase these flats, we will see a shift in mind-set."

EVENT

FUTURE OF CONNECTED LIGHTING SYSTEM

HAVELLS PRESENTED “SPOTLIGHT SERIES” ORGANISED BY REALTY+ MASTERCLASS ON JUNE 18 FEATURED **DR. KARSTEN EHLING, FOUNDING PARTNER & MANAGING DIRECTOR, LICHTVISION GERMANY** WHO ELABORATED ON THE LATEST TRENDS OF AUTOMATION THAT ARE TRANSFORMING THE LIGHTING INDUSTRY.



Dr. Karsten Ehling an expert on the use and analysis of daylight in architecture was joined by **Sudeshna Mukhopadhyay, Vice President, Havells India Ltd.**, an experienced consultant in lighting technology, application, design and end user research in India & Asia Pacific in the discussion on the current shifts in lighting design and applications.

Dr. Ehling was of the view that organizations are now more inclined to consider operating costs rather than the capital expenditure on lighting systems in commercial establishments. “Globally, Lighting as a Service (LaaS) model in which light service is charged on a subscription basis rather than via a one-time payment by specialized service provider

is becoming popular. It includes light design, financing, installation, maintenance and other services. Appropriateness of lighting solutions against sustainability and Cradle to Cradle approach for lighting systems are some of the themes, lighting designers are working on now. Software enabled lighting controls are in the trend and energy-efficiency & convenience are the factors driving ‘On Demand’ solutions for lighting in commercial spaces,” he said.

DR EHLING HIGHLIGHTED THE FOLLOWING MACRO TRENDS IN LIGHTING:

Workspaces: Smart/connected lighting with sensors and

controllers that are networked (wired/wireless) is a trend that is evident in office lighting as it provides opportunities for better lighting, increases comfort, productivity and energy efficiency. Due to the pandemic, home offices are now prevalent for WFH which too requires well designed lighting for user comfort. Thus flexible lighting systems with wireless controllers for homes are in demand these days.

Shopping: In retail sector Amazon and other e-commerce platforms have revolutionized offline shopping as well. IoT Based lighting offers, lighting-based indoor positioning system, asset tracking for critical assets tagged with sensors, monitor conditions for perishable goods and space utilization.

Hospitality: In hospitality sector, LED light fixtures and lighting controls play a pivotal role in crafting memorable experiences from personalized room lighting setting through guest smartphone, multiple sensor information for indoor navigation, monitoring of room quality parameter, use of amenities processed to optimise guest comfort and convenience as well as use of Li-Fi – short for Light-Fidelity – a wireless communication technology that utilises light to communicate and exchange data between connected devices.

Retrofitting: In the wake of the pandemic, homes and office owners are considering installing touchless lighting controls for contactless operations. This offers a perfect opportunity to retrofit smart lighting solutions as many of the lighting systems in current buildings are not energy efficient. The ideal solution for simple and flexible installation, easy programming and a one-touch centralised control panel is offered by RFID system made up of a series of wireless transmitters, receivers and combined units.

"With growing urbanization the need for sustainable solutions is increasing. Energy efficiency and convenience will be driver of architectural and smart technical solutions including lighting on demand, activated through smart sensors as part of city lighting infrastructure."
Sudeshna Mukhopadhyay

"Software enabled lighting controls and IoT evolution will be a game changer in the world of lighting and will ultimately transform the industry and lighting designers will drive the entire chain of lighting infrastructure while, adding health and well-being in it."
Dr. Karsten Ehling

LIGHTING THE CITIES OF FUTURE

Sudeshna Mukhopadhyay, Vice President, Havells India Ltd was of the view that the pace of lighting technology development varied from country to country. She said, "The adoption of lighting technology is different in various countries. With rapid infrastructure development in India, government has now moved to using LED lights in public spaces that are also IoT connected and thus energy efficient as they can change temperature as per the time of the day."

According to Sudeshna, connected lighting is dependent on other infrastructure such as telecom and BMS and thus requires synergies among various professionals apart from the architect and lighting designers. **Dr. Karsten** concurred that with the advent of IoT, also comes the challenges of interoperability, scalability and cyber security which are still being worked upon by various industry professionals.

Sudeshna Mukhopadhyay emphasized the need to embrace new technologies in infrastructure lighting systems that can not only offer security and energy efficiency but also set the path for deploying future smart solutions. "High-quality, intelligent lighting helps make a city safer and more attractive."

Dr. Karsten Ehling stated, "Lighting will play a major role in future when it comes to automation and optimization of buildings and cities. For instance, UV-C lighting is one component that has grabbed much attention. It is powered by Ultra-Violet radiation that functions to disinfect surfaces within minutes. Similarly, Li-Fi offers a much more secure network than Wi-Fi alone and LaaS is a trend that is fast being adopted by businesses globally."

EVENT

DESIGNS FOR THE PROTO-CITY: DISAGGREGATION OF THE FUTURE

HAVELLS INSIGNIA ADEX SERIES ORGANISED BY REALTY+ MASTERCLASS ON JULY 22 FEATURED ARCHITECT & URBANIST **MADHAV RAMAN, PRINCIPAL & CO-FOUNDER, ANAGRAM ARCHITECTS** WHO HIGHLIGHTED THE IMPORTANCE OF INTEGRATION OF ARCHITECTURE, TECHNOLOGY AND LIFESTYLE.

Madhav Raman's interests in cultural histories and urban economics has added depth to his practice as he brings insight and experience in transit, urban ecologies, multi-disciplinary strategies and new technologies to the projects. His work focuses on promoting a reconnect with ecology and responsible lifestyles through design articulation and innovation. According to architect Madhav Raman, cities are the expression of the society and in the present pandemic, people have been forced to rethink the traditional practices and beliefs. Same holds true for architecture and design.

THE PROJECTS

Giving examples of some of his projects, Madhav Raman elaborated, "In the building called The Digit, the approach of our design was to investigate the notion of identity (corporate, organisational and individual) and its urban projection. To this end, we explored, semiotically, the most common idiom of identity, the thumbprint. The shimmering, fluttering, red screen perforated with the company's logo on the front elevation of the building is an idiom for its "digital identity".

Connecting three generations of a joint family in the residential project is The Cleft House built on a narrow plot facing a busy city road in a dense precinct. Conceived as a breached monolith, this residence with faceted stone facades mitigates heat gain and visual intrusion through a

jagged naturally ventilated central void putting a vibrant social courtyard at its heart.

An example of contextual design is the South Asian Human Rights Documentation Centre (SAHRDC) building located on the periphery of the planned city abutting the semi urban settlement. It has the flanking wall conceived as an animated, dynamic skin that reflects the bustle of the street while its porosity playfully engages with the street corner. A six brick module is laid in staggered courses that create twirling vertical stacks and an undulating surface. The methods of brick-laying were devised through deep on-site collaboration between the masons and the architects."

COMMUNITY OUTREACH

Ar. Raman also shared his design initiatives that involved the community such as the Project Sammaan that aims to redesign & improve community sanitation facilities in urban Indian slums. It brings together architects & designers with empirical researchers, waste management experts, community engagement specialists & project management teams, intrinsically involving government & local urban bodies.

Another example is that of the project Malakpur Akhara – Earthmade Gymnasium for Malakpur village. The Panchayat wanted to prevent social youth erosion and sought a modern akhara for wrestling and kabaddi on mats, while hosting tournaments and drawings



sponsorships and attention from professional leagues. The sports facility comprising three circular pavilions arranged around single story ancillary spaces made out of rammed earth will be an international wrestling and kabaddi arena, transforming the village from a folk wrestling hub into a modern regional centre.

NEED FOR COLLABORATION

Vivek Yadav, Senior Vice President, Havells India Limited applauded Ar. Raman's diversity of projects with a purpose and agreed that there were a lot of changes happening in people's lifestyle influencing the space design and also creating an opportunity for innovation. He added, "As a solution providers, we are keen to work with specifiers and influencers to come up with best technological products for the present and future needs. And for that end we have established a research lab to invites designers to collaborate on finding new solutions."

Architect Raman agreed that there is a need of collaboration among all stakeholders of the construction sector and such initiatives are the need of the hour. "While in the West, technology has been led by innovations in materials. In India communication and entertainment is leading the technology breakthrough. "The three sustainable technology trends in Indian architecture going forward will be - technology for water efficiency & sanitation, energy-efficient technologies and online communication. Additionally, city planning norms will have to become more inclusive by integrating the unplanned pockets of urban settlement within the city development by the planning authorities. This calls for disaggregation or detailed observation at micro as well as macro level of city growth."

Vivek Yadav too was of the view that there was a need to adopt to changes like low energy factors and

"Artificial Intelligence enabled Smart technologies that need minimum human intervention for asset management, space usage and optimization of resources like energy and water consumption will be the future of built spaces. Covid has fast-forwarded the trends like WFH that were there in the offing. Most importantly it has changed our way of looking at spaces and its functions. People have now discovered new uses of the same space. So, this is an exciting time for us as designers," Madhav Raman

efficient usage of space and construction materials. "Commercial and residential buildings use a huge amount of lighting which need to be addressed through smart lighting and energy saving systems to reduce energy consumption."

The discussion concluded with **Remal Behl, Head for Enterprise Business, Havells India Ltd** summarizing the session and emphasizing on Havells approach towards providing sustainable tech solutions and promoting collaborative platforms for the industry.

EVENT

LIGHTING FOR SMART BUILDINGS ALIGNING WELLNESS & SUSTAINABILITY

PRAVEEN THAMPI, CREATIVE DIRECTOR, THE MINISTRY OF LIGHT WAS THE EMINENT SPEAKER AT THE HAVELLS “SPOTLIGHT” SERIES ORGANISED BY REALTY+ MASTERCLASS ON AUGUST 06. HE HIGHLIGHTED THE INTEGRATION OF LIGHTING TECHNOLOGY & DESIGN TO BUILD SMART AND HEALTHY BUILDINGS.

Praveen Thampi is one of the few lighting consultants worldwide specializing in innovative & sustainable office lighting techniques by blending the ASHRAE Standards, CIBSE LG7 Guidelines & IGBC LEED Standards. In his talk, he briefed on the evolution of lighting design, products and systems for the office spaces over the years. He elaborated on the difference between human centric lighting that impacts the various aspects of occupants' work life and circadian lighting that influences the biological clock of human beings.

Praveen elaborated how with the advent of computers, the paperwork usually done on a horizontal surface was replaced by vertical surface of the computer screen and thus lighting guidelines for workspaces too had to undergo changes. He also emphasized that there are already green building standards and wellness principles in force that many designers follow for incorporating sustainability and healthy environment in buildings. “The LEED ratings for eco-friendly buildings and the WELL Building Standard that

enhance human health and well-being are followed world over for well-designed buildings and spaces,” he stated.

LIGHTING FOR FUTURE WORKSPACES

Explaining the concept of human centric lighting, Praveen shared that lighting that offers individualistic comfort and convenience and raises the quality of work and life for the individual can be considered a human centric lighting. “For instance, a younger employee need of light intensity is lower than that of an older employee. Customized lighting options for every occupant can personalize their light experience. Also, the ambient lighting should be designed such, to change with the time of the day. Daylighting is an important consideration but, it is seen that many building managers use blinds during the day to avoid glare during early hours and continue to cover the glass façade thus, not taking advantage of the glare free daylight available during the day. Dynamic fenestration or sensor based blinds that track sunlight glare and open and close accordingly can not only help cut back on



energy bills, but also offer natural lighting and healthy indoor environment,” stated Praveen Thampi.

The designer gave another example how lighting can enhance the work output. “During the video meetings, while some members of a certain skin tone look better during video conferencing, it’s not as flattering for other skin tones. This is because the general lighting of the room is not adjustable and suitable to only one skin coloring. But, now, the advanced lighting systems attune to each skin tone to give correct picture quality.”

The eminent designer also briefed on how circadian lighting affects productivity. “Circadian lighting is a type of lighting system that mimics real sunlight down to the color, angle, and position, thus staying in tune with human’s natural circadian rhythms. Some of the benefits of human circadian lights in office space consist of increased alertness, productivity and concentration s, good mood, reduced hyperactivity and faster cognitive processing.”

“Light has a major impact on our sleep-wake cycle and in turn, our wellbeing. Not enough bright light means our body feels sleepy, too much light makes us irritable. Therefore, instead of static lighting inside office spaces, we need to measure the light occupants are receiving from a human perspective.” Praveen Thampi

CHALLENGES & POTENTIAL

Praveen Thampi shared his experience of working on projects across countries. He was of the view that even best of the architectural and design firms were not aware of the importance of integrating lighting systems with the interior design of a space. “Especially challenging are the open floor plans where the dark ceiling background creates a distraction for efficient work lighting. In some projects we created a floating plane over work desks to incorporate the lighting systems that could provide good lighting for work comfort.”

Partha Karmakar, Business Head, Professional Lighting, Havells Group joining the conversation agreed that awareness not only among building owners and project managers, but also among architects is lacking. “As a manufacturer, we are in the continuous process of informing the design fraternity of latest products and systems but, then it is up to the designers to put them to correct applications for optimum benefits. When it comes to smart buildings one of the most important factors is lighting controls. And with intelligent systems available, energy efficiency and occupant wellness have become easier than before to manage in any space,” he added.

According to **Praveen Thampi**, India’s lighting industry has progressed leaps and bounds and is in many ways ahead of European counterparts. “One of the main reasons is that India is the Call centre of the world. The IT and ITeS industries need efficient and sustainable lighting systems for employee productivity and comfort during long day and night working shifts. In terms of latest products system-on-chip (SoC) has become an important component in the lighting industry, fuelling IoT innovation and opening new opportunities for adaptive lighting systems that use sensors to drive efficiencies.”

PROJECT WATCH

TREHAN IRIS BROADWAY SECTOR 85-86, GURUGRAM



Name of the Developer - Trehan IRIS

RERA No - HRERA: 168 of 2017 dated 29/08/2017

Current Status of Construction – Delivered & an Operational Mall

Date of Project Delivery– March 2019

Plot Size – 2.8 Acres

No. of Units - Total - 295 (Block A-242, Block B- 50 and Block C- 03)

Brands on Board - Reliance Supermarket, Haldiram's, INOX, Tata Chroma, McDonald's, KFC, Pizza Hut, Chaayos, PUMA, Funky Island and others

DISTINCT FEATURES

Trehan IRIS Broadway developed by Trehan IRIS a six decades old developer. This project is the epicentre of Retail,

Entertainment & Hospitality located centrally in the New Gurugram. Located right on the 135 meter road. It has 1000 Ft frontage with road facing premium shops and large storefronts for better visibility of retail units. With 6 Anchors and 3 of them already operational.

AMENITIES

- Triple Basement Parking
- 100 % Power Backup
- Ample Surface Parking
- Two Sided Open Access
- Low Maintenance
- Multiple Escalators and Elevators
- Multiple Rain Water Harvesting facilities

SHIVALIK AVENUE

BODAKDEV, AHMEDABAD, GUJARAT

Name of the Developer - Shivalik Group

RERA No - PR/GJ/AHMEDABAD/AHMEDABAD CITY/AUDA/MAA02517/260418

Current Status of Construction - Ready Possession

Date of Project Delivery - B.U. DATE - 08/02/2021

Plot Size - 6150 Sq Yard

No. of Towers & Units - 3 Blocks & 63 Units

Cost Per Square Feet - 7200 ++

DISTINCT FEATURES

- Green Building
- Biggest Size Of Balcony

- Double Side Stairs in Foyer Area
- Sensor Parking System for Allotted Parking
- Electric vehicles Charging Points
- Rain Harvesting System
- Solar System for Common Area

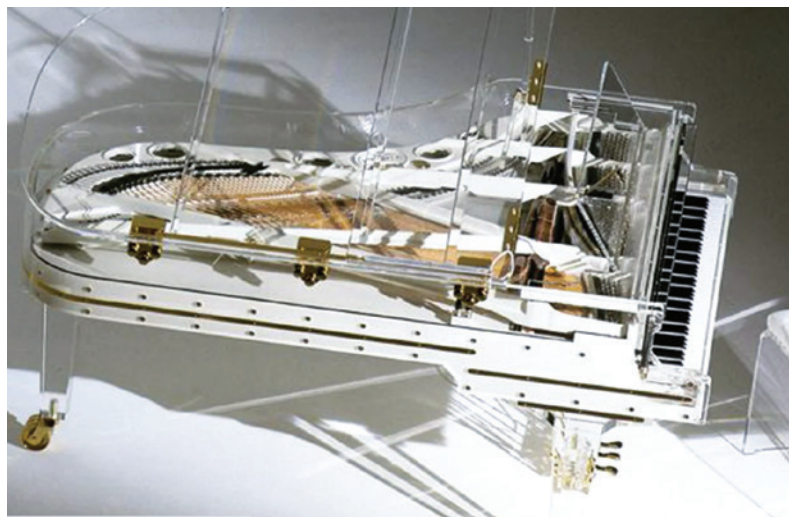
AMENITIES

- Garden
- Children Play Area
- Gym
- Gazebo On Terrace
- Per unit 2 parking allotted



CRYSTAL PIANO: A TRUE SONATA OF ART & MUSIC

One of the most expensive instruments in the world Crystal Piano, made entirely of crystals was sold for 3.2 million USD. It is a Heintzman & Co. piano – a manufacturer based in Canada. This transparent masterpiece is made up entirely of crystal. Designed especially for the opulent occasion, the piano displays a true sonata of art and music.



PANTHER BRACELET: ART DECO STYLE

This Cartier designed bracelet became not only the most expensive Cartier bracelet in the world but also the most expensive bracelet ever sold at auction. Also known as Panthère de Cartier, this elegant 7 million-dollar bracelet has a new lease of life with a new, modern collection. The perfect example of art deco style in the Cartier collection, panthers have long been a motif of Toussaint.



GOLD-PLATED BUGATTI: A HEAD TURNER

The Gold-plated Bugatti Veyron is in the list of world's most expensive car model, costing \$10 million. One of the owners include American rapper Flo Rida and some middle-eastern billionaires. It goes from 0-100 in 2.8 seconds, and looks like a ghost at that speed. Customizing firm 'Foilacar' wrapped it in gold and black. Gold-colored cars might not be to everyone's taste, but the shimmering paint job on this Veyron sure is a head-turner.



13th **Realty+**
CONCLAVE
&
EXCELLENCE
AWARDS-2021
WEST

★ A VIRTUAL SERIES ★

THE TRADITION OF EXCELLENCE CONTINUES

Join the list of prestigious award winners!

adani
Realty



AMAR BUILDERS
360° Real Estate

amara

awfis



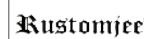
Brookfield
Properties

DB REALTY
SINCE 1997

DOSTI
PROPERTIES



EKTA world
INNOVATE. ACHIEVE.



Register Now

FOR AWARD NOMINATIONS, CONTACT:

Monisha Karkera +91 9870441920 | monisha.karkera@exchange4media.com

Avantika Patel +91 76780 41182 | avantika.patel@exchange4media.com

Nidhi Kapadia +91 8879500962 | nidhi.kapadia@exchange4media.com

FOR BRANDING OPPORTUNITIES, CONTACT:

Tripti Kedia +91 98200 10226 | tripti@exchange4media.com

Ganesh Gurav +91 99309 60403 | ganesh.gurav@exchange4media.com

PARTNERS

ORGANISED BY

Realty+

BUSINESS MEDIA PARTNER

BW BUSINESSWORLD
www.businessworld.in

ONLINE MEDIA PARTNER

exchange4media.com

#17YearsOfRealEstate

Realty+

17TH

ANNIVERSARY

Collector's Edition

**BRAVE NEW WORLD
BEYOND 2021**

Step Boldly Into The **New** With Realty+

TO COLLABORATE WITH REALTY+, CONTACT:

Tripti Kedia | +91 98200 10226 | tripti@exchange4media.com