



NAREDCO
National Real Estate Development Council
Under the aegis of Ministry of Housing & Urban Affairs, Government of India



Indian real estate and construction: Consolidating for growth

September 2018

[KPMG.com/in](https://www.kpmg.com/in)



Succeeding in turbulent times

Real estate sector is estimated to grow to

USD650 billion

by 2025 and surpass

USD850 billion

by 2028 – driven by emerging asset classes such as affordable housing and co-working spaces



USD4 billion

has been invested by institutional investors in 2018 so far; average deal size crossed USD150 million mark, the highest in the last five years



Institutional financing is becoming a prominent financing medium, particularly focusing on the commercial sector which attracts over

60 per cent

of investments.



Close to one-third of the real estate leaders reported that their company experienced a cybersecurity issue over the last

24 months

an indication that technologies such as, cybersecurity, blockchain, IoT, AI and data analytics can be key enablers for the sector in the mid-term.



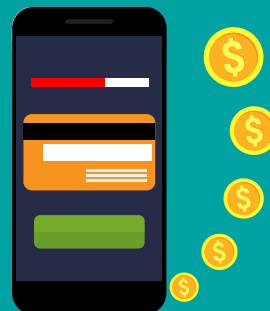
Pre-GST implementation CAGR (2014–16) of

15 per cent

has increased to an expected post-GST implementation CAGR (2017–21) of

21 per cent

for Grade A and B warehouse stock projections in the top eight cities in India



Five key regulatory reforms are working in tandem to bring in the next wave of transformation in the sector:



RERA

Aims at increasing transparency and accountability

Out of the total 35 states and UTs, more than 55 per cent of the states and UTs had no Appellate Tribunal



GST

Replaced the multi-layered taxation system with a unified tax economy

Implementation of GST garnered a mixed view from various stakeholders from the real estate sector



Ind AS 115

Directed the realty firms to shift from the Percentage Completion Method to project completion method

The change is expected to have an impact in the short-term only, till developers get comfortable with new standard introduced



IBC

Instills a sense of urgency among all stakeholders to resolve bad loans that have plagued the balance sheet of banks

At the end of 2017, developers accounted for USD20 billion worth of stressed bank loans



REITs

Aims at providing avenues for fund raising and alternative investments

Over 20 billion worth of REIT office stocks, offering a potential rental yield of up to 7.5 per cent, remained





Foreword — KPMG in India



Neeraj Bansal

Partner and Head

ASEAN Corridor

Building, Construction and Real Estate,
KPMG in India

The real estate sector in India entered a revitalisation mode during 2018 where the teething problems posed by various regulatory reforms started settling in. In the last few years, the central government introduced several landmark reforms (such as RERA, GST, Insolvency and Bankruptcy Code, adoption of REITs, etc.) to instigate a healthy ecosystem infused with greater transparency, accountability and customer assurance. Overall, the sector countersigned both disruption as well as optimism with these reforms coming in, and after almost three years into it, the overall growth can be forecasted in numbers. Sector growth is projected to reach USD650 billion by 2025 and surpass USD850 billion by 2028. As by-products of this growth, the average yearly contribution of 6 – 7 per cent to Indian gross domestic product (GDP) is anticipated to almost double by 2025 while generating employment opportunities for over 66 million people in parallel.

Investment trends largely remain similar to last year where institutional financing once again emerged as a prominent financing medium, particularly focusing on the commercial segment which attracted about 80 per cent of the total investments between 2016 and YTD-2018. More than 60 per cent of the PE investments in 2017 have already been recorded till 1H2018.

Residential segment, though, has not seen much progress over the years, the conferred infrastructure status to 'affordable housing' backed by GST relief, high demand and subsidised financing is expected to break this jinx in the coming years.

A closer look into the emergent growth of the commercial sector reveals the gaining traction of new asset classes such as co-working spaces driven by entrepreneurs wanting to explore a flexible, low cost approach breaking the stereotypical leasing arrangement. In addition to this, warehousing realty is also becoming an attractive avenue owing to supply chain efficiencies, cost savings through 'hub and spoke' structure, and strong growth momentum being exhibited by sectors such as e-commerce, retail, FMCG, automotive, to name a few.

Concurrently, this report briefly touches upon the technological disruption trending in the sector. The government has been actively promoting digitisation and enabling ICT based infrastructure solutions through initiatives like 'Smart City' and 'IndiaChain'. Real estate operators are progressively exploring opportunities to harness this 'big data' and develop building automation and resource management systems for commercial and private spaces to maximise comfort, environmental quality and sustainability. Despite all this, there is a strong need for public-private-partnerships and private ventures for improving efficiencies in the real estate ecosystem.

All of the aforementioned points can be read in detail in this paper. I would like to thank everyone involved in preparing this report, and I hope you find it insightful.

Foreword — NAREDCO



Dr. Niranjana Hiranandani

National President-NAREDCO & Co-Founder and MD,
Hiranandani Group

It gives me great pleasure to present the KPMG Report titled **'Indian Real Estate and Construction: Consolidating for growth'** which is being launched at the REIIS 2018 Summit by National Real Estate Development Council (NAREDCO) in association with APREA on 27 – 28 September in Mumbai. The report unravels the journey that the real estate sector in India has covered so far and the way ahead.

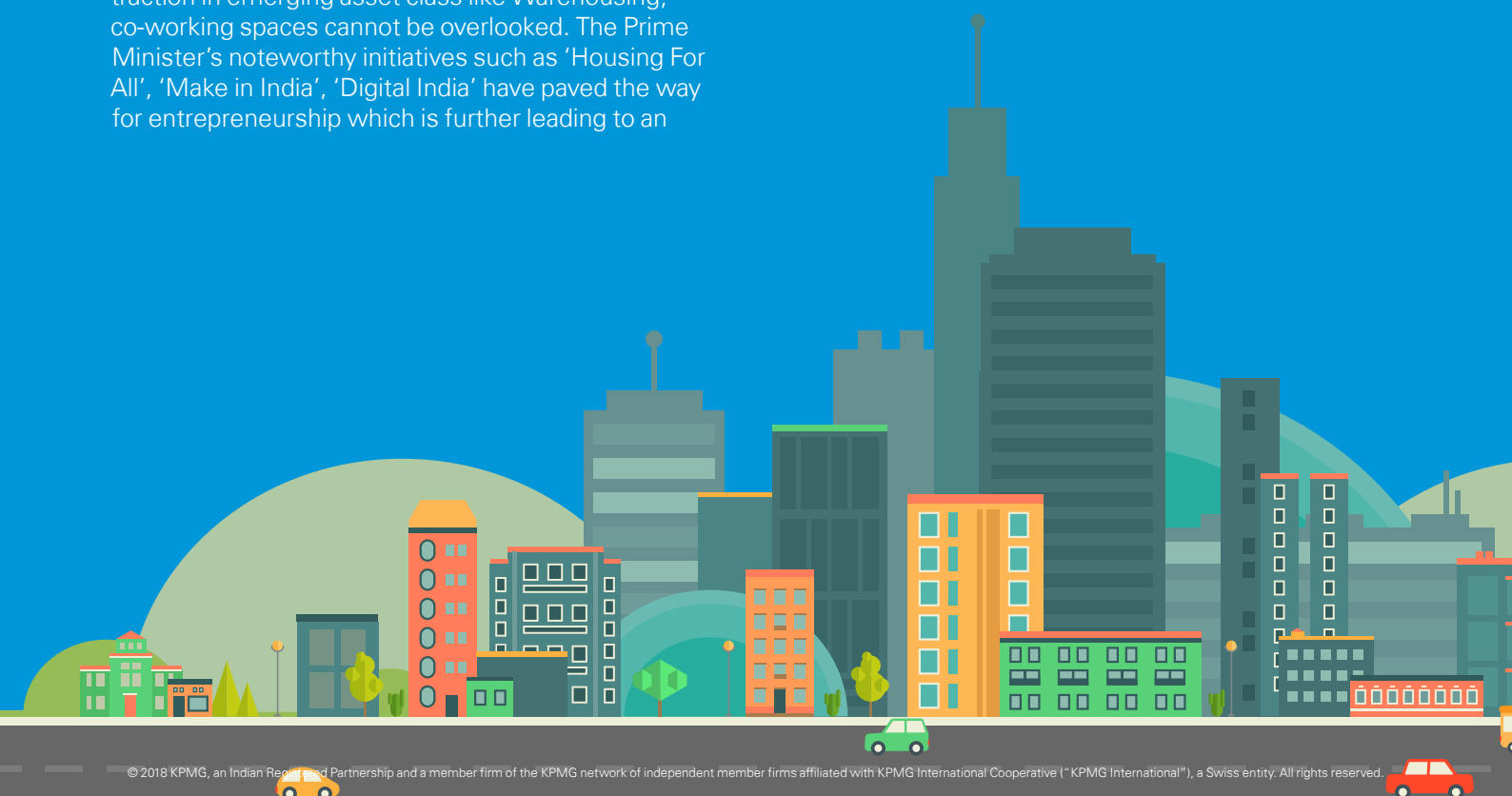
The sector, witnessed the implementation of landmark reforms such as GST, RERA, Ind AS115, IBC etc., that pushed the industry towards a healthier ecosystem. All these efforts combined, not only brought some financial discipline in the sector but also positioned India as a global hub for investments. Real estate sector being a second major contributor for GDP growth after agriculture, is witnessing a gush of foreign investments in commercial segment since the post-reform era.

Talking about the commercial sector, the gaining traction in emerging asset class like Warehousing, co-working spaces cannot be overlooked. The Prime Minister's noteworthy initiatives such as 'Housing For All', 'Make in India', 'Digital India' have paved the way for entrepreneurship which is further leading to an

upsurge in the demand for flexible and new workplaces. Smart co-working spaces powered by advanced IT infrastructure, high speed connectivity and IoT enabled building management systems are picking up fast and are expected to cater to the needs of over 15 million individuals and businesses by 2020.

Rapidly evolving technology and changing regulatory landscape is redefining how real-estate business is conducted and managed in the Indian scenario. What's noteworthy is how virtual tours of property, digital contracts, centralised command and control centers, smart building solutions and cloud storage are quickly becoming common industry practices and are gradually heading to a tech-driven real estate sector.

KPMG has done a wonderful job in this publication and I am sure it will be an insightful read to all of you.



Foreword — APREA



Peter Verwer

Chief Executive Officer,
APREA: Asia Pacific Real Estate Association

This report reveals an Indian economy in transition. It also offers a roadmap to tremendous real estate development and investment opportunities. The property industry plays a critical role in shaping the cities that underpin India's economic and social transformation. It's not just the economy and community aspirations that are changing. The demand for real estate, the type of buildings we deliver, along with the services and amenity they offer are also fast-evolving to meet India's needs. For instance, India is in the process of adding 115 million non-farm workers to its labour force up to the middle of the next decade, which is more than three times China's urban workforce growth rate. As this report shows, the workplaces of the future will be radically different to traditional service sector and industrial manufacturing models.

India will require both traditional buildings and more versatile formats, such as co-working spaces, modern logistics facilities, business incubators, data centres and social infrastructure.

Above all, India's ambitious prosperity project requires a massive injection of homes to accommodate its expanding workforce and young families. A rental

housing asset class is not a replacement for build-to-sell homes – it is a vital complement to traditional housing business models. Professionally managed rental housing is the world's fastest growing asset class. In the USA, multifamily housing is now the second largest REIT category. Governments in China, Europe and Australia are all re-booting their strategic planning and development frameworks, financing platforms and incentive schemes to massively boost rental housing stock.

Greater housing affordability, liveability and choice are now core national objectives in all major countries.

India's world-class REIT and InvIT frameworks offer unique pathways to meet these needs in India.

As this report clearly demonstrates, India is on the cusp of a new era of manifest opportunities.

The property industry in India is primed to actively meet these innovation challenges. As are local and international investors who are keen to contribute to and gain access to the Sub Continent's exciting growth story.





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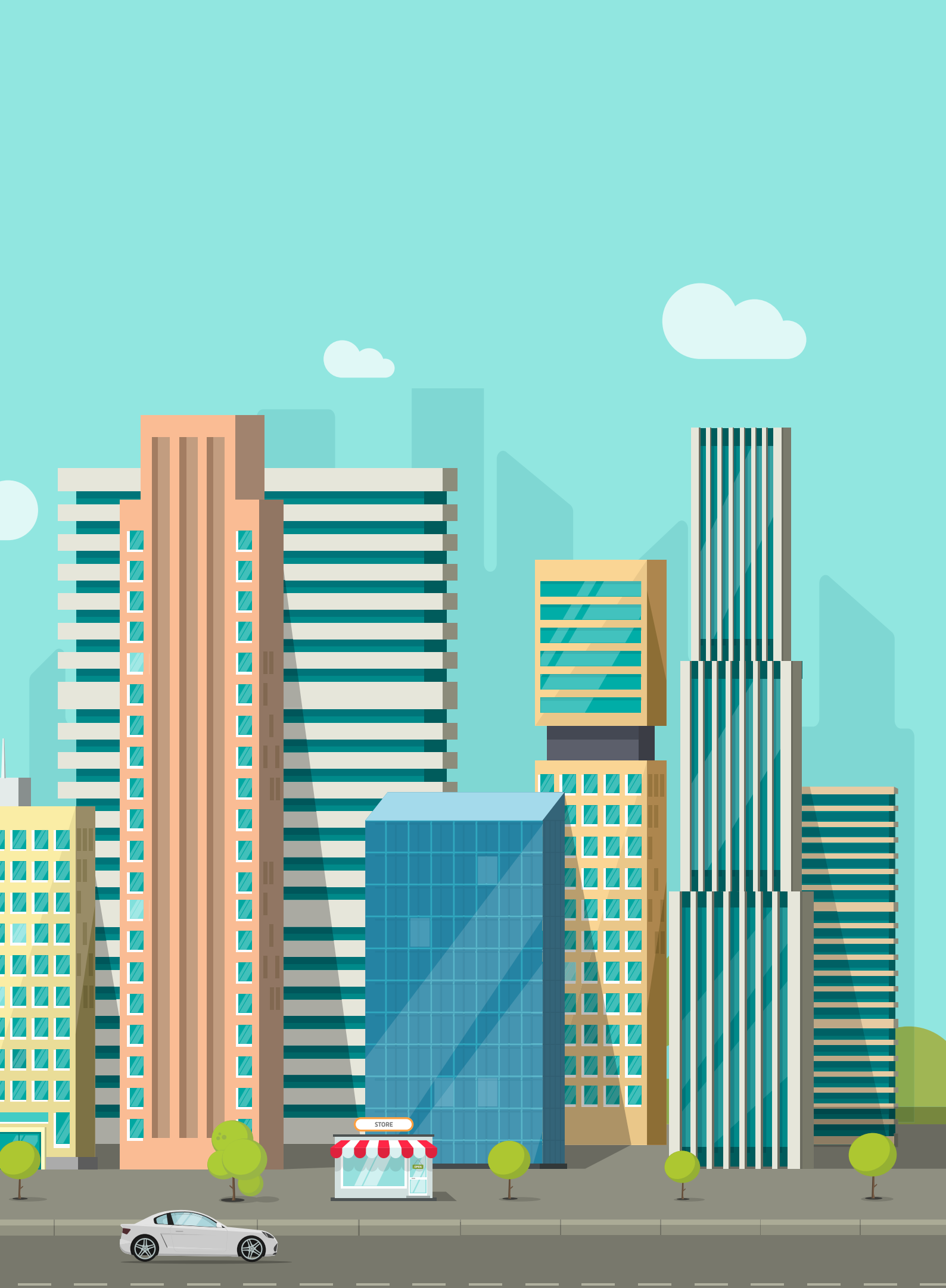
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The Indian real estate sector: 2018 and beyond



Introduction

2018, the turning point

2018 is proving to be a turning point for the Indian real estate sector in many ways. With the current government's renewed focus on affordable housing, game changing regulatory reforms, and infrastructure status to warehousing, business sentiment has been positive. The private equity investments in Indian real estate improved 15 per cent year-on-year in January-March 2018 reaching USD3 billion¹ billion and are estimated to grow to USD100 billion by 2026² with tier 1 and 2 cities benefiting the most in future.

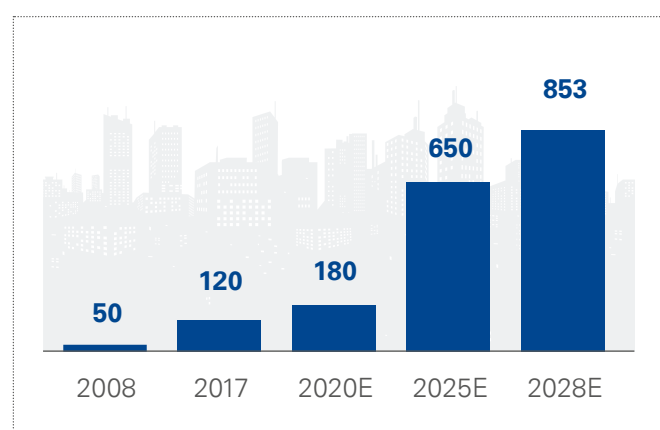
No so long ago, the Indian real estate sector was struggling with unsold inventory, reducing buyers' confidence, delays in projects, and negative cash flows. However, a number of growth promoting regulatory developments and initiatives announced over the last two years, are paving the way for strong sector growth in the future.

Sector in numbers

The real estate sector holds considerable significance in the Indian economy as it contributed about 6-7 per cent to the Indian gross domestic product (GDP) in 2017 and is expected to contribute about 13 per cent by 2025³. By 2030, the Indian real estate industry is expected to touch USD1 trillion, becoming the third largest globally. It is also the third largest employer

(after agriculture and manufacturing) in the country and presently employs over 50 million people⁴. As per the National Skill Development Council (NSDC), real estate and construction sector is expected to necessitate demand for over 66 million people by 2022. The sector is estimated to grow to USD650 billion by 2025 and surpass USD850 billion by 2028. India has consistently improved its ranking on the global real estate in 2014 which has instilled confidence in investors. The value increased from USD174 billion in Q42012 to USD243 billion in Q22018. Residential, commercial and retail are the three key asset classes, which have primarily been contributing to the sector's growth.

Indian real estate — Market size (USD billion)



Source: KPMG in India analysis, Assessing the Economic Impact of India's Real Estate, CREDAI - CBRE Report, September 2017

1. PE investors pump in usd 2.6 bn into real estate; inflows into residential assets highest in 10 quarters, Cushman and Wakefield, 1 May 2018
2. Traversing through the epic, predicting the curve, JLL India, March 2018
3. Assessing the Economic Impact of India's Real Estate, CREDAI - CBRE Report, September 2017
4. Realty, construction to generate 15 million jobs by 2022, Economic Times, January 2018

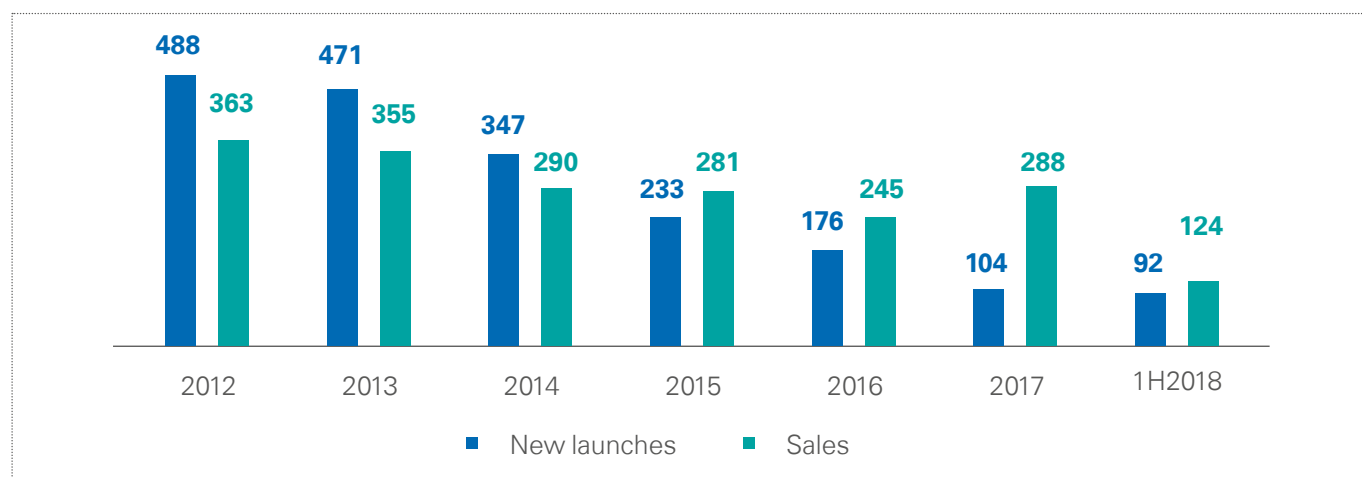


A mixed year for the residential sector

Residential segment contributes nearly 80 per cent⁵ to the overall real estate development in the country. So far, 2018 has been a mixed year for the segment, while on one hand the policy push for affordable housing is reviving the segment from the downfall witnessed over the last few years in terms of both new launches and

sales, but buyers are still being cautious while investing money in residential properties. Lifestyle or premium housing remains sluggish while affordable housing, as a segment, is increasingly gaining traction. Launches within the price range of INR4 million were the highest during 2017 and 2018⁶.

Housing — New launches and sales (in '000)



Source: India real estate: Residential and office (January to June 2018), Knight Frank, August 2018

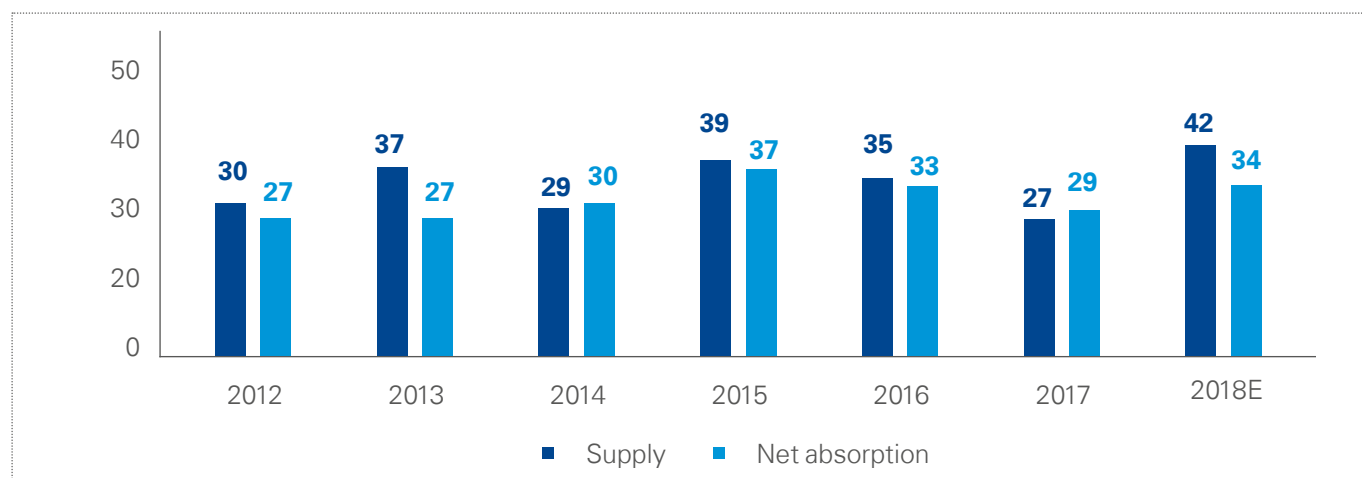
Commercial segment, opportunities ahead

India's commercial real estate market is one of the most well-organised markets in the Asia-Pacific region and the introduction of Real Estate Investment Trust (REITs) structure is expected to help the sector become even more efficient. Currently, the pan-India office vacancy rate stands at 14 per cent⁷ that is considered to be a natural vacancy rate. In 2017, the commercial markets

saw new completions at over 26 million sq ft and in 2018 this number is expected to reach 42 million sq ft⁸.

Commercial assets have been the most preferred asset classes in real estate by investors over the last couple of years. It has attracted about 80 per cent⁹ of the total investments between 2016 and YTD-2018.

Office space trends - Area (million sq. feet)



Source: Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

5. India residential property market overview, Colliers International, January 2017

6. Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

7. Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

8. Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

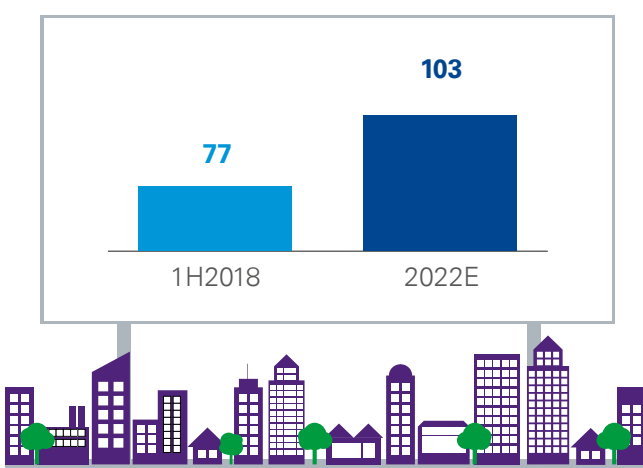
9. Indian real estate: Decoding institutional investments, KPMG in India, September 2017

Retail segment to remain steady

The retail segment is expected to remain steady in the medium to long-term with a strong supply pipeline and stout absorption. In 2017, net absorption of malls was at 3.2 million sq ft which is expected to reach 5.2 million sq ft by end of 2018 and is likely to be higher (6.7 million sq ft) for 2019¹⁰.

Delhi-NCR accounts for almost 32 per cent of total retail space in India, followed by Mumbai at 23 per cent and Bengaluru at 14 per cent. Delhi-NCR has a Grade A retail stock of 24.6 million sq ft, while Mumbai has 17.6 million sq ft and Bengaluru has 10.5 million sq ft¹¹. Retail investors are gradually focusing on emerging retail destinations (tier 1 and 2) over metros, due to higher growth prospects.

Grade A retail completed stock (in million sq feet)



Source: Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

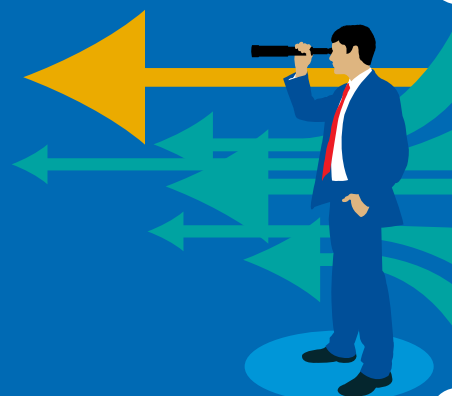
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Real Estate Industry, in the post-RERA age, has seen consolidation and enhanced lending. Government has encouraged development of affordable housing by various schemes for the end-users [consumers], however, the cost of receiving permissions is still very high and the same needs to be rationalised for effective policy implementation. On the demand side, commercial real estate has witnessed higher traction in the recent two quarters thanks to the increase in demand from the shared-space community. We expect the residential supply to compress and rationalise primarily due to the delays in execution & slack in residential transactions, mainly driven by perception of oversupply without differentiating between “real” deliverable supply and “perceived” supply most of which is undeliverable, stalled or delayed. Key to success is to adopt radical innovations in Business Models, enabling Blue Ocean Space.

- Ashish Raheja
Managing Director,
Raheja Universal (Pvt.) Limited

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Overall, strong economic ground rules, proactive reforms and usage of technology will continue to boost the sector. Recognising the potential, a number of other asset classes —such as co-working space, affordable housing, rental housing, and warehousing realty —have mushroomed in the country and are fast gaining traction. Increased interest in affordable housing is expected to be witnessed due to the Central Government’s policy push, innovative technology as well as increased participation from the private sector. Easier availability of land in the extended suburban sub-markets, along with improved infrastructure connectivity, is also helping drive the real estate sector.



10. Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018

11. Future of India Real Estate Deciphering the mid-term perspective, JLL India, September 2018



Emerging asset classes: Getting to critical mass

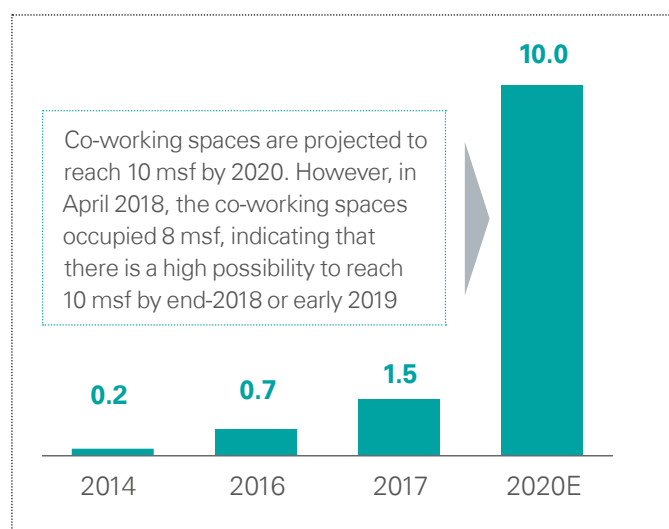


Co-working spaces, the walls are collapsing

Co-working in India is an emerging business model and is being recognised as the 'future of work'. Prime real estate has traditionally been unavailable for a majority start-ups and small and medium sized enterprises (SMEs) due to high associated costs. Co-working spaces are thus increasingly becoming popular and are in demand among boutique firms and start-ups, considering the benefits such as flexibility, cost-savings and on-demand accessibility being offered.

By the end of June 2018, the industry witnessed around 200 co-working players offering around 400 shared workspaces across different parts of India, compared to 30 centres recorded in 2010¹².

Co-working space leasing, in million square feet (msf) (2014–20E)



Source: Co-Working Space Leasing in India to Touch 10 Mn sq.ft. by 2020, CBRE, June 2017

Who are the buyers

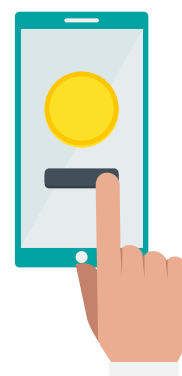
- Co-working is primarily fueled by start-ups and SMEs and they are likely to continue to remain the dominant clientele

What is driving the growth

- Growing start-up ecosystem:** The start-up network is growing strongly with over 5,200 entities operating in the country. It is currently at the third position in terms of number of start-ups after China and the U.S. It is forecasted to reach 10,500 by 2020, growing 2 times¹³.

India is the youngest start-up country in the world, with 72 per cent founders under 35 years¹⁴, and hence, co-working facilities provide an excellent business opportunity in commercial realty. Smaller organisations have traditionally found it difficult to find cost-effective offices. However, they now have the option of having an economical office in a Central Business District (CBD) location in tier I cities, for short periods without associated costs such as security and utility costs.

- Attracting investor confidence with USD400 million in investments expected by 2018¹⁵:** Co-working facilities have the potential to deliver 30–40 per cent gross margin for operators at 80 per cent occupancy, with a break-even period of approximately six to nine months. Hence, they have also been attracting interest from global players over the past two to three years¹⁶.
- Possible cost benefits compared to conventional offices¹⁷:** Economically, co-working spaces are a much more viable option for start-ups and SMEs, given the cost advantage over the long run, as compared to conventional leasing arrangement.
 - 5–15 per cent standard saving per seat compared to standard lease
 - 50 per cent reduction in co-working cost per seat compared to conventional leasing arrangement
 - 15–25 per cent savings on real estate and office maintenance cost
- Focus from government:** The government is supportive of the idea of co-working spaces, as evident from the announcement of India's first government-owned co-working space for start-ups in Mangaluru, with a sustainable revenue model for the facility designed to accommodate 100 people¹⁸.



12. Co-working demand set to triple in the next 3 years, Knight Frank, June 2018

13. India retains its position as world's third largest, The times of india, October 2016

14. India ranks third in global startup ecosystem: Nasscom, ETRise, October 2015

15. The Future of work: The coworking revolution, JLL India, July 2017

16. Real estate broker report – Thomson Reuters, ICICI Securities

17. India office market: Co-working: The office of the future?, Knightfrank, June 2018

18. Government to set up workspace for startups in Mangaluru, ETRise, June 2017

“

Commercial real estate in India is witnessing disruptive trends over past few years. Workplace as a Service (WaaS) is an emerging concept in commercial office space that combines elements of sharing, flexibility, access, amenities, and collaboration. India has seen rapid growth in co-working space within the last couple of years, and this is an area that will certainly grow in the coming years too. Finally, the use of artificial intelligence is likely to significantly upgrade visitor security standards in commercial (and residential) buildings in the near future, perhaps as early as in 2019

- Amit Diwan
Managing Director and
Country Head
Hines

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What are the critical success factors

Co-working spaces have emerged as a small and growing segment for office leasing demand in India. However, there are a few teething issues, if resolved, could further accelerate growth.

For operators: Resolution management for developers when there are differences between co-workers

For occupiers: Data privacy and information security along with culture clash as corporates might lose their corporate culture when employees join a co-working space

Where is it headed

Start-ups are forecasted to reach 10,500 by 2020, growing 2 times. It is estimated that co-working spaces shall overtake traditional serviced offices by 2020¹⁹. The opportunity now lies for organisations in India to benefit from the growth of co-working networks.

Affordable housing, housing for all

The housing shortage in India stood at 63 million units in 2012²⁰. While the overall demand continues to swell, affordable housing has emerged as a trigger for the sector's overall growth, driven by the Central Government. The government has taken an aggressive stance to promote affordable housing in the country. It launched an initiative, 'Housing for All by 2022', or Pradhan Mantri Awas Yojana (PMAY, Urban and Grameen) with a goal of building 20 million affordable houses by 31 March 2022 for urban poor through financial assistance of INR2 trillion (USD29 billion)²¹. As part of the initiative, the government granted infrastructure status to enable affordable projects to avail benefits such as lower borrowing rates, tax concessions (100 per cent tax immunity for developers) and increased private investment.

Announcement of a new Public Private Partnership (PPP) policy further granted central subsidy of up to INR0.3 million per house to be built by private developers and INR0.3 million per house²² as interest subsidy on bank loans under PMAY (U).

Moreover, GST on affordable houses was lowered from 12 to 8 per cent (on the total value of under-construction properties). This in turn helped to cut transaction cost of under-construction properties, thus boosting the sector.

Who are the buyers

- Economically Weaker Section (EWS) and Lower Income Group (LIG) households with an annual income of upto INR0.6 million²³
 - Along with encouragement to private investments and PPP projects, the government is expected to inject approximately INR1 trillion in affordable housing projects over the next three to four years.

What is driving the growth

- **Rapid urbanisation:** Progressive urbanisation, growing along with urban population, which rose from 109 million in 1971 to 377 million in 2011, is anticipated to reach 600 million by 2030²⁴. This mounting concentration of the general public in urban localities is leading to land and housing scarcities and crowded transit, along side the elementary facilities such as water and power.

19. The Future of work: The coworking revolution, JLL India, July 2017

20. Housing for All by 2022: A Big Opportunity in the Making, National Real Estate Development Council (NAREDCO), Mirae Asset Global Investments, 2017

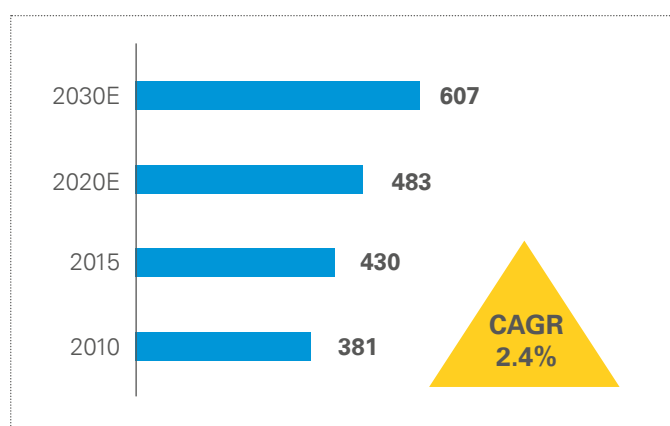
21. Indian real estate: unfolding the era of growth, KPMG in India, August 2017

22. To ensure Housing for All by 2022, Centre unveils new PPP policy, Financial Express, September 2017

23. Budget 2018: Allocation for affordable housing doubled to Rs 8 billion, Business Standard, February 2018

24. Affordable Housing: Policy and practice in India, ScienceDirect, June 2015

Urban population in India (in millions)



Source: United Nations Urban Population by country, 1950-2050 last accessed on 12 September 2018

- Shortage of affordable houses:** During the 12th plan period, The Ministry of Housing projected a housing shortage of 19 million houses with almost 99 per cent shortage coming from economically weaker section and lower income groups. Slums and informal dwellings are estimated at 65 million as per Census 2011²⁵.

PMAY (U) status analysis	
Houses to be built by 2022 under the scheme	20,000,000
Houses completed till August 2018 ²⁶	834,100
Remaining houses to be built by 2022	19,165,900
Months remaining (starting Oct'18)	51
Houses to be built per month under PMAY (U)	375,802

Source: PMAY (U)- HFA, state wise progress, August 2018, last accessed on 14 September 2018, KPMG in India analysis, September 2018

- Growth of disposable income for the lower strata:** Along with the upsurge in the urban residents, rising incomes have led to the enlargement of the middle class. This has in turn resulted in an increased demand for affordable housing equipped with basic facilities.

25. Affordable Housing, The Indian perspective & future outlook: Building change & sustainable communities, JLL India, March 2018

26. PMAY-Urban HFA- state wise progress YTD, accessed on 14 September 2018

“

Housing is a fundamental need for all. With the government's increased focus towards providing “Housing for All” and existing demand-supply gap, Affordable Housing undoubtedly is going to be the game changer of Real Estate in India. For making this a success and encouraging big companies/ developers to come forward, four key imperatives need to be in place. Faster approval process; developers ability to adapt and implement new technologies, innovative methods like pre-cast, PODs, etc.; design standardisation that are efficient and pre-cast friendly to improve delivery speed and attain economies of scale. Lastly availability of manufacturing plants to supply fabricated units/ inputs that are ready to be assembled on site.

- Shrikant Joshi
CEO & MD
L&T Realty Ltd

”



- **Access to credit:**

- a. **Credit Linked Subsidy Scheme (CLSS):**

Government schemes like the Credit Linked Subsidy Scheme (CLSS) ensures availability of affordable credit for low-cost housing buyers. This

scheme provides easy institutional credit to EWS, LIG and MIG households for home purchase. Primary Lending Institutions (PLIs) credits interest subsidy credited straight to the borrower's account thus reducing the overall burden of housing loan and Equated Monthly Instalments (EMI)²⁷.

Credit Linked Subsidy Scheme

Type	Income (per annum, in INR million)	Interest Subsidy (%)	Up to Loan Amount (INR million)	Up to Carpet Area (sq.m.)
Economically Weaker Section (EWS)	Upto 0.3	6.5	0.6	30
Low Income Group (LIG)	0.3 to 0.6	6.5	0.6	60
Middle Income Group (MIG-I)	0.6 to 1.2	4	0.9	120
Middle Income Group (MIG-II)	1.2 to 1.8	3	1.2	150

Note: Carpet area of houses eligible for subsidy under CLSS for MIG-I and MIG-II has been increased from 90 and 110 sq.m to 120 and 150 sq.m, respectively, effective from January 1, 2017.

Source: Ministry of Housing and Urban Poverty Alleviation (MoHUPA).

- b. **Affordable Housing in Partnership (AHP):**

To attract private participation in the affordable housing projects, this scheme offers financial aid to private developers. Under this scheme, central assistance is offered at the rate of INR0.15 million per EWS house in private projects where a minimum of 35 per cent of the houses are built for EWS category²⁸.

- c. **Beneficiary-led Construction or enhancement**

(BLC): This offers a central assistance of INR0.15 million per family for new structure or extension of existing units for the EWS/ LIG²⁹.

- Absence of large organised real estate players owing to low profit margins
- Challenges in beneficiary selection, deficiencies in development norms, project design and planning and lack of suitable mechanism for maintenance are some of the other factors that could pace of affordable housing development

Where is it headed

- Going forward, the fast-track clearing process and work towards removing bureaucratic delays would be critical
- Introduction of a simpler/single window clearance process can help reduce unnecessary construction delays
- Moving to outlying areas with land availability is expected to solve the land scarcity issue
- Offering attractive incentives to private developers can open access to globally accredited mass construction technologies
- Controlling inflation and offering tax rebates on construction processes are some of the additional ways that can accelerate the success of this mission.

What are the critical success factors³⁰?

- While the government has been proactively extending the benefits of PMAY to private developers, low availability and thus higher cost of land continues to remain a bottleneck for investors
- Restrictions on building density and undeveloped infrastructure around affordable projects further compounds the challenges for developers
- Long approval processes and unavailability of land records and high cost of funding available for developers are challenges as well

27. Affordable Housing in India, RBI Bulletin, January 2018

28. Affordable Housing in India, RBI Bulletin, January 2018

29. Affordable Housing in India, RBI Bulletin, January 2018

30. 9 challenges affordable housing needs to overcome, Magicbricks, March 2018

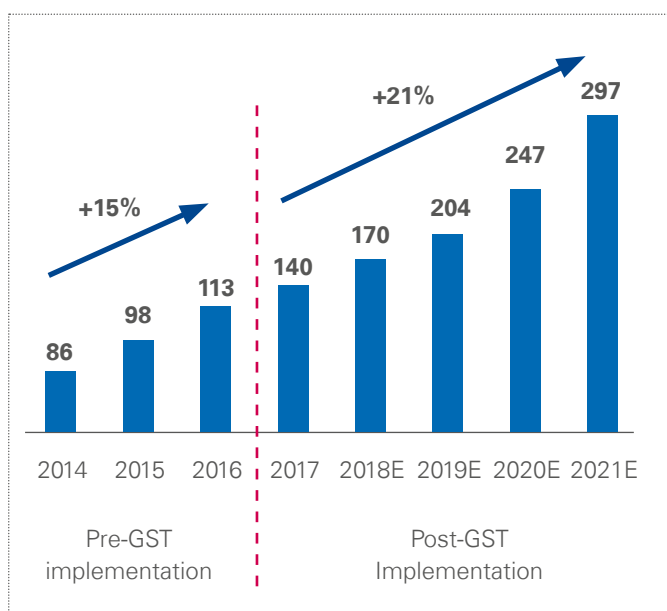
Warehousing realty, gaining momentum

The Indian warehousing segment is undergoing significant structural shifts after the implementation of GST, a uniform taxation regime. Smaller and fragmented warehouses are getting consolidated into centralised warehousing hubs with increasing focus on supply chain efficiencies.

The Indian warehousing industry was valued at INR560 billion in 2017³¹. It is noteworthy that the implementation of GST has dramatically improved efficiencies and cost-savings with a 'Hub and Spoke' model of warehousing. Pre-GST implementation CAGR (2014–16) of 15 per cent has increased to an expected post-GST implementation CAGR (2017–21) of 21 per cent for Grade A and B warehouse stock projections in the top eight cities in India³².

Additionally, transaction volumes of warehousing spaces increased 85 per cent in 2017 to 25 million sq.ft³³ across India's top cities – Mumbai, NCR, Ahmedabad, Bengaluru, Pune, Chennai, Hyderabad and Kolkata.

Warehousing stock projections in top eight cities (million square feet)



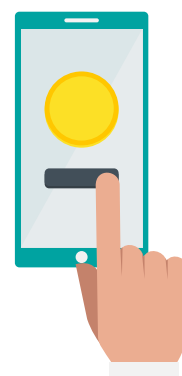
Source: Indian Logistics: Deciphering Storage Space Dynamics and more, JLL, March 2018

Who are the buyers

- The advancements in **e-commerce** and the need for a shorter turnaround time for delivery has led to a sharp increase in the warehousing segment.
- Also, **auto and auto ancillary**, and **chemical and pharmaceutical** sectors are currently one of the largest demand drivers for warehousing realty.
- The **electronic and white goods segment** is expected to be the next big sector, with the need of substantial warehouses in urban and semi – urban areas.

What is driving the growth

- **GST:** The uniform tax regime ushered in by the introduction of GST is leading to consolidation in larger warehouses to help attain benefits from economies of scale. This in turn is driving the demand for efficient and larger warehouses. GST has also reduced the need to maintain high inventory levels resulting in increased demand for shared and centralised warehousing hubs, which aid in improving inventory turnover rates. This is likely to result in significant real estate cost savings.
- **Growth of organised retail:** Segments such as e-commerce, retail, FMCG, automotive and OEMs, chemical and pharmaceutical sectors are poised for strong growth in the coming years. This is expected to augment the need for warehouses, thereby driving growth. For example, high growth in the e-commerce segment would be accompanied by an increase in regional fulfilment centres.
- **Availability of large warehouses:** Total warehouse space in eight primary locations in India is expected to reach 204 million square feet by 2019³⁴, driven by strong demand and investment in the short to medium-term. Strategic locations such as Nagpur, Bengaluru, Kolkata and Guwahati are expected to become regional warehousing hubs connected to smaller local nodes via secondary logistics. According to industry experts, warehousing spaces is expected to witness an increase of 112 per cent by 2021³⁵.
- **Infrastructure status to the logistics sector including warehousing:** In November 2017, the government awarded infrastructure status to the logistics sector that comprises industrial parks, cold chains and warehousing facilities. The infrastructure status has paved the way for institutional players to invest in the sector, bringing in a number of benefits for the warehousing realty³⁶.



31. 2018 trends in Indian warehousing and logistics, North West carrying Company LLP, September 2017

32. Indian Logistics: Deciphering Storage Space Dynamics and more, JLL, March 2018

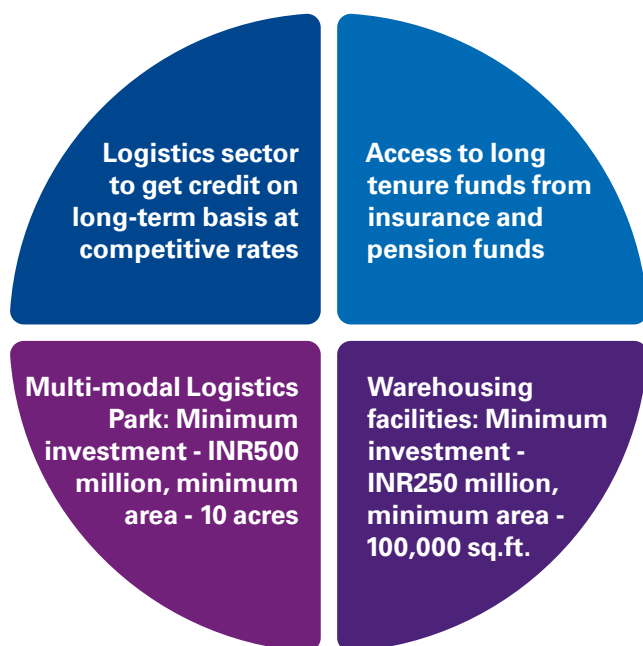
33. Institutional investors pack \$3.4 billion in warehousing, Economic Times, March 2018

34. Indian Logistics: Deciphering Storage Space Dynamics and more, JLL, March 2018

35. GST Ushers New Era Of Warehousing; Will Lead To Over 100% Growth, JLL, June 2018

36. Indian Warehousing: The evolutionary leap forward, JLL, June 2018

Potential benefits:



What are the critical success factors

- **Easy availability and procurement of land** with clear title and proper approvals in strategic locations
- Making **land acquisition rules consistent** across states, thereby reducing entry barriers and mutuating implications on cost and time
- **Robust logistics infrastructure** to bridge the gap between metro cities, tier 1, 2, 3 cities and rural areas

Where is it headed

The future of India is implementing 'Logistics 4.0' or 'Smart Warehouse'³⁷ which shall include technologies such as sensors, robots, drones and real time inventory software. Advanced automation and warehouse management system capabilities, to improve warehousing efficiencies, are going to be a necessity in the fast changing market dynamics due to the increased demand.³⁸

Government initiatives such as GST, granting infrastructure status and 'Make in India', are providing the much needed boost to PE investments in this sector. Domestic and Global institutional investors in a span of last 4 years have invested over USD3 billion in warehousing. These accounted for around 26 per cent of the total PE in the sector during the said period.

- India is expected to witness investments of approximately INR500 billion for creating storage facilities between 2018 and 2020, leading to an approximate CAGR of 21 per cent by 2021.

Rental housing, bumped up by unmet demands

The rental market is currently dominated by two major segments – increased demand from the migrated working class and rising demand-supply gaps in student housing. This market is still highly fragmented in India, and is majorly available in forms of campus housing, private hostels and the residential paying guest houses.

The Economic Survey 2016-17 stated that migration had doubled from 5-6 million a year during the 2001-11 period to almost 9 million a year in the 2011-16 time frame. Student housing, as an emerging asset class, is gaining strong traction – as the top ten states (in terms of number of higher education students) have an unmet student accommodation demand of 30–60 per cent.

Several reforms are needed to bring in a broad structure in the rental housing market.

Who are the buyers

- **Migrated working class^{39,40}:** In 2016-17, more than 90 cities in the country, registered a population growth of 3 per cent or more, y-o-y, with the highest migration numbers to Delhi. The urban housing shortage back in 2012 was 19 million homes majorly required by the lower income groups. Data available on migration-rental hypothesis suggest that states such as Andhra Pradesh, Gujarat and Maharashtra have a considerably high percentage of rental housing. As per industry reports, small, medium and large cities had 28 per cent, 36 per cent and 40 per cent of rental housing respectively across classes.
- **Students⁴¹:** India has over 36 million students currently in the higher education space. Student housing shall continue to experience growing demand as there has been a 67 per cent increase in the student population and a 29 per cent increase in the number of universities since 2010. The number of students are also increasing steadily at a high CAGR of 9 per cent since nearly a decade. Metros and education hubs such as Hyderabad, Pune, Bengaluru, Chennai, Indore and Kota are the focus cities for developers due to high density of students and reasonable property prices.

37. 2018 trends in Indian warehousing and logistics, North West carrying Company LLP, September 2017

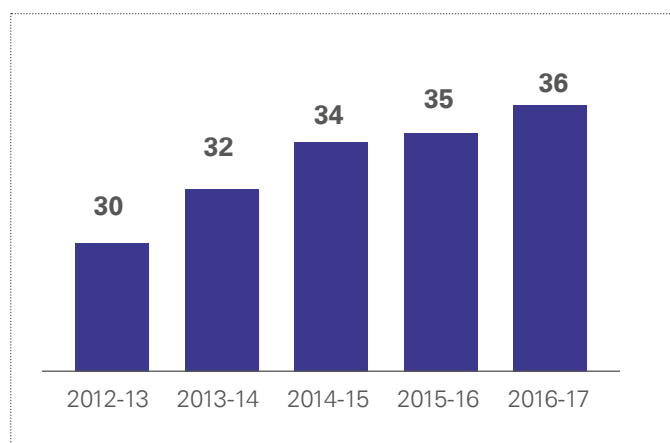
38. Indian Warehousing: The evolutionary leap forward, JLL, June 2018

39. Urban housing shortage to touch 3.4 cr units by 2022, The Hindu Business Line, February 2015

40. Rental Housing: Top factors holding back growth of rental market in India, Financial Express, March 2018

41. Student Housing A new dawn in Indian real estate, JLL, July 2017

Number of higher education students in India (in million)

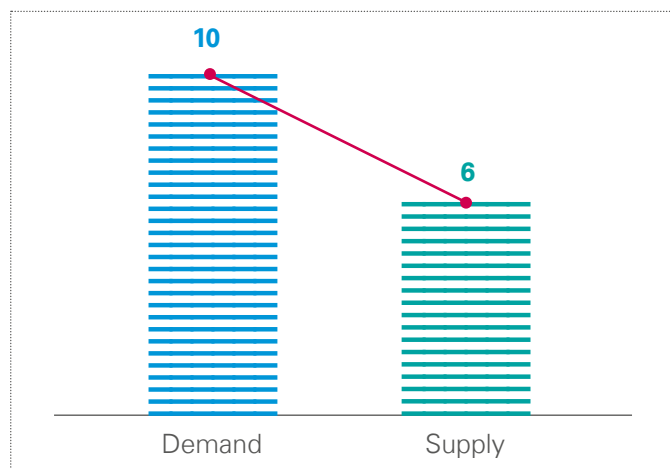


Source: All India Survey on Higher Education, MHRD, 2017

What is driving the growth

- **Unmet student accommodation demand⁴²:** There is enormous potential for developers to expand current student housing capacity by approximately 100 per cent every year for the next four to five years due to the increasing unmet student accommodation demand.

Demand-supply gap* in the number of beds for students (in million), 2016-17



*Assuming 30 per cent students to be migrants out of the 36 million students, during 2016-17

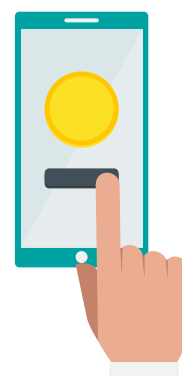
Source: Student Housing A new dawn in Indian real estate, JLL, July 2017

- **Change in mindset of people:** Renting a house, is no longer just driven by affordability, as compared to buying a home. People, especially the working class, are now choosing the rental option, to be able to live in a preferred locality and to avail amenities based on their lifestyle preferences. This changing trend, presents an immense opportunity for organised players and Rental Management Companies (RMCs).

- **Increased commute time:** Owing to traffic woes and increased commute time, rental housing in proximity to office space and educational institutes is becoming a preferred option among both working population and students, especially in metros and suburban areas.
- **Rise in business travel:** In addition, people are travelling for work, more frequently than ever before. For short stays, people earlier used to rely on hotels or serviced apartments, which can be expensive. In such scenarios, a short-term rental plan, which allows customers to book a furnished flat for one day to six months, is proving to be ideal. Such needs, could be positive for RMCs in India, with tenants desiring services that are transparent and consumer-focused, as compared to the existing systems.

What are the critical success factors

- Government initiatives towards relaxed norms and incentivising private players is expected to provide the much needed impetus to the segment. Industry wish list includes,
 - Specific relaxation in GST on room rent, considering rental housing is still considered in the same category as hotel accommodation in India and thus, attracting a similar GST rate of 12 per cent
 - Dedicated land planning and licensing in the master plan for rental housing
 - Relaxation in building by-laws, especially around density and parking norms
- Landlords have been disincentivised from renting their houses owing to several state-enacted Rent Control Acts (RCAs). The RCAs which favoured the tenants have made it difficult for landlords to evict defaulting tenants and has also capped the rent – this has in turn impacted market sentiments adversely and would require to be streamlined further.
 - A fast-track court to settle eviction disputes which could take less time to be settled coupled with repealing the RCAs could enable more confidence in the rental housing market.



42. Student Housing A new dawn in Indian real estate, JLL, July 2017

- Government reforms that can help housing markets with comprehensive policies and actions to provide subsidised rental housing to low income groups could be an added advantage.
 - This could also include providing incentives to the private sector through tax benefits such as concessions on property taxes, setting a non-taxable income level and including basic amenities in the non-taxable income category.
- Controlled land prices in places such as Delhi and Mumbai to encourage developers to establish more housing projects.

Where is it headed

- In the long run, rental housing is expected to continue to thrive owing to a number of factors such as:
 - The student housing sector's expected annual yield rate is about 15–18 per cent, compared to the retail and commercial sector which provides a return of 9–11 per cent.⁴³
 - Student housing developers are experiencing growing demand for specialised hostels catering to women due to increase in the number of women in higher education.
 - Mismatch between employment opportunities and housing options available in major cities
 - Additionally, regulations such as National Urban Rental Housing Policy planning to bring 11 million vacant unsold houses onto the rental market, could further encourage demand and reduce housing shortage
- The increase in demand for rental housing, in turn, is expected to boost RMCs' ecosystem. RMCs help property-owners manage their rental properties effectively. Housing associations and RMCs in Europe and in the U.S. have displayed huge success primarily due to their potential to create greater rental income, relaxed eviction formalities without causing problems to tenants and seamless upkeep.

“

The real estate industry is undergoing a revolutionary change, driven by unconventional space preference of millennials, changing business models due to automation and AI, occupiers' preference to future proof their businesses, offering of space as a service, and technology disruptions at the heart of it all. Shared real estate, whether it is office space, warehousing, student housing, executive learning or co-living, is not only the flavour of the season, but is an integral part of the broader concept of a sharing economy, towards which the world is moving at a rapid pace.

- Vinamra Srivastava
CEO Operations & Private Funds,
Ascendas-Singbridge India

”

43. Student Housing A new dawn in Indian real estate, JLL, July 2017

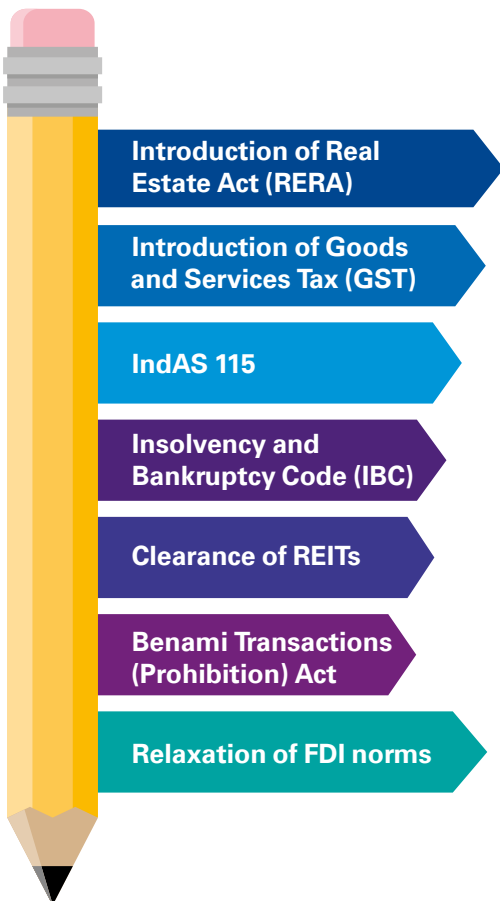


Regulatory reforms: Shaping the industry



Introduction

Over the last few years, the real estate sector in India witnessed a series of regulatory reforms aimed at driving transparency, governance, financial discipline and regulation. Post initial disturbances caused by these reforms, the industry has now started moving ahead with a positive mindset. Some of the notable reforms include:



“

The dynamics of residential real estate financing have changed dramatically in post-RERA world. Developers' capital requirements have increased substantially and attaining financial closure has become increasingly difficult in an end user driven market. In such a scenario, we foresee a need for flexible organised capital matching the specific requirements of the project, being the order of the day for the residential property markets over the years to come.

- Vipul Roongta
Managing Director & CEO,
HDFC Capital Advisors

”



RERA - implementation needs gearing up

Enacted in May 2016, the Real Estate Act (RERA) was introduced for regulation and promotion of the Indian real estate sector. The act seeks to balance the rights of various stakeholders such as buyers, developers, investors etc., by providing a dedicated redressal forum.

Impact of RERA^{44,45,46}:

	Buyer	Developer	Government
↑	<ul style="list-style-type: none"> • Availability of critical project information • Dedicated grievance redressal forum • Higher transparency in property purchase • Expected timely possession with limited surprises 	<ul style="list-style-type: none"> • Market consolidation • Improved investor and consumer confidence • Availability of project funding expected to improve over time 	<ul style="list-style-type: none"> • Expected reduction in property related economic offences • Increased transparency and improved consumer sentiments
↓	<ul style="list-style-type: none"> • Fully implemented across few states • Inconsistent rules and regulation across states 	<ul style="list-style-type: none"> • Various approving agencies yet to fall under the realm of RERA • Elimination of soft launch under RERA leading to higher capital requirement at the time of launch • Inconsistent rules and regulation across states 	<ul style="list-style-type: none"> • Lack of standard implementation across states • Absence of grievance redressal mechanism in most of the states

Out of the total 35 states and UTs...



Note: RERA is applicable across 28 States (except Jammu and Kashmir) and 7 UTs. The information above includes both Permanent and Interim Real Estate Regulators and Appellate Tribunals.

Source: RERA websites, last accessed on 14 September 2018

44. KPMG in India's analysis, September 2018

45. RERA websites, last accessed on 14 September 2018

46. 1 year of RERA: Not much has changed for the homebuyer, Economic Times, April 2018

What is next^{47,48}?

Government

- Induce fast track implementation and appointment of permanent regulators across states
- Ensure consistency in rules and regulations across states; consistent implementation
- Empower RERA to regulate various approving agencies

Developers

- Bring in organisational transformation to drive a customer centric and regulatory compliant environment
- Ensure project funding closure before launch
- Strengthen key processes including project planning, implementation, monitoring, customer management, contracting, etc.
- Ensure quality through real time monitoring within stipulated time period

“

The post RERA environment is ambient with a positive fragrance, as now the Real Estate sector is becoming more organised, structured, streamlined and fast-tracking rightly with an enhanced transparency. RERA has laid down the things in the true perspective regaining the confidence and trust, rekindling and inculcating the interest of the buyers for buying and investing in the Real estate sector. RERA has uplifted faith in the Real Estate as it has addressed the concurrent problems and issues diligently faced by the buyers and various stakeholders. It is buyers friendly and post RERA, buyers can not be in doldrums for an unaccounted delay in projects. Although RERA is functioning well in some states, but still more hard work and further improvement is required.

- Parveen Jain
Vice Chairman, NAREDCO,
CMD, Tulip Infratech

”



47. KPMG in India's analysis, September 2018

48. 1 year of RERA: Not much has changed for the homebuyer, Economic Times, April 2018



GST – taxing the real estate sector

Effective 1 July 2017, the primary intent with implementation of GST was to replace the multi-layered taxation system with a unified tax economy. Implementation of GST garnered a mixed view on the real estate sector. While it has trimmed down construction cost to some extent, specific asset segments (especially luxury residential and commercial) were impacted adversely. Additionally, some taxes such as stamp duty, property tax, etc. were not subsumed under GST.

Further, as the realty sector is associated with more than 250 sectors, any change in GST rates, regulation, and policies is expected to impact the realty sector as well.

Impact of GST^{49,50,51}:

	Buyer	Developer	Government
↑	<ul style="list-style-type: none"> Advantageous for affordable and mid income houses as developer input credit on construction cost is expected to reduce overall GST implication on new projects 	<ul style="list-style-type: none"> Consolidation of multiple tax layers Emergence of a common market superseding various federal tax barriers Pan-India uniform tax treatment 	<ul style="list-style-type: none"> Uniform tax and compliance structure Possibility of enhanced deployment of automations and analytics in tax administration Greater transparency
↓	<ul style="list-style-type: none"> Exclusion of stamp duty paid by buyer from GST purview Increase in the prices of certain under-construction projects due to limited availability of ITC 	<ul style="list-style-type: none"> Lack of clarity on anti-profiteering aspects Cascading effect continues in commercial leasing owing to denial of input GST on construction 	<ul style="list-style-type: none"> Lack of clarity of certain aspects of GST Portal related hiccups

What is next?⁵²

Government

- Higher efficiency through pan-India unified and electronic GST reporting
- Stabilise the number of frequent revisions in the compliances, rules and rates
- Provide clarity on some key aspects typical to the sector

Developers

- Assess the reduction in price on under-construction pre-GST projects
- Highlight key areas requiring consideration to the policy makers
- Assist the contractor and supplier ecosystem on GST compliances

49. KPMG in India's analysis, September 2018;

50. Why the realty sector feels taxed, post-GST, Business Line, June 2018

51. One Year of GST – Good, Bad or Ugly for Real Estate?, The Property Times, June 2018

52. KPMG in India's analysis, September 2018;

Indian Accounting Standard (Ind AS) 115 – bringing much needed transparency in the sector

The standard came into effect on 1 April 2018 and directed realty firms to shift from the Percentage Completion Method (POCM) to project completion method.

The new standard replaces existing revenue recognition Ind AS115, *Construction Contracts* and Ind AS18, *Revenue*. The new standard primarily revolves around the core principle that revenue shall be recognised upon transfer of control of goods or services to the customer by the entity, at the permitted amount. Thus, under the new accounting model, the developers are allowed to book revenue only after the project is completed and possession is transferred to the buyer. Even with implementation, the revenue recognition practices of the real estate companies have not changed much as the regulators in India made a significant carve-out for the sectories.

Key drivers of Ind AS115^{53,54,55}

- Avoid manipulation of accounts, which was possible due to certain loopholes – such as the manner of accounting for project delays, cancellations, customer withdrawals, etc. – in the older accounting method
- Enhance transparency of the financial statements in the sector in order to increase credibility
- Ensure that payments received from buyers (including advances) are aptly reflecting as loans and not sales on the balance sheets of developers
- New standard in line with the International Financial Reporting Standards

Impact of Ind AS115^{56,57,58}

Buyer

- Possibility of market correction through elimination of over-leveraged players

Developer

- Write back profits booked for projects under construction, in the first quarter post implementation of new accounting standard
- Customer advances to be parked under current liabilities
- The retrospective adjustment from the earlier quarters is likely to pull realty firms' reserves down
- Change in revenue recognition model is likely to effect the debt to equity ratios and price to book value ratio leading to stock price volatility
- Developers must get compensated for the work performed, including a reasonable profit margin at any stage during the contract if there is a termination.

However, the change is expected to have an impact in the short-term only. In the long-run, the new accounting method is expected to bring transparency in the sector and thus enhance credibility among the buyers.

What is next?

- Issuance of guidance whether tax is payable based on revenue calculations on POC or completed contract basis
- Clarity as to how one-time adjustment to the retained earnings (recognised on moving from POC to completed contract accounting) will be tax deductible
- Clarity on guidance in areas such as licensing, variable considerations, multiple element contracts/ bundled products, financing components and royalties for intellectual properties

53. Indian Accounting Standard (Ind AS) 115, Revenue from Contracts with Customers, The Ministry of Corporate Affairs, March 2018

54. Ind AS115, KPMG in India Analysis, April 2018

55. Nightmare of Indian Accounting Standard 115 comes to haunt firms in the real estate sector, Livemint, July 2018

56. Indian Accounting Standard (Ind AS) 115, Revenue from Contracts with Customers, The Ministry of Corporate Affairs, March 2018

57. Ind AS115, KPMG in India Analysis, April 2018

58. Nightmare of Indian Accounting Standard 115 comes to haunt firms in the real estate sector, Livemint, July 2018

Insolvency and Bankruptcy Code (IBC) - facilitating time bound debt recovery

IBC is a unified framework that poses a number of implications on real estate companies in India. With the introduction of IBC, the code has been successful in instilling a sense of urgency among all stakeholders to resolve bad loans that has plagued the balance sheet of banks.

IBC is still evolving due to various amendments and judicial precedents such as IBC Amendment (Ordinance) 2018.

Key drivers of IBC^{59,60}:

- Introduction of IBC was an attempt to recover some parts of USD20 billion of stressed bank loans lying with developers at the end of 2017
- Dissatisfaction among real estate buyers due to delays or non-delivery of units booked
- Developers' inability to payback amounts owed to vendors
- Empower all classes of creditors (secured and unsecured lenders, home buyers, regulatory authorities) to trigger a resolution process in case of non-payments

Impact of IBC^{61,62}:

Buyer

- Home-buyers have been recognised as financial creditors which treats/considers them at par with financial institutions to receive proportionate share out of liquidation proceed
- The amendments made by the Ordinance brings IBC in closer sync with RERA which gives the allottees the right to demand refund of the entire amount paid by them (together with interest at prescribed rates) and claim interest for any delayed possession
- Speedy resolution of insolvencies - threshold of voting for all major decisions of the committee of creditors (CoC) has been reduced from 75 per cent to 66 per cent

Developer

- Stricter regulations and vigilance over developers in case of default

What is next?

- Home buyers, whether secured or unsecured creditors, will be decided on a case to case basis by the resolution professional and the courts

Real estate investment trusts (REITs)

REITs, which has already been adopted by more than 30* countries across the globe, was adopted by India in the year 2014.

With an aim of providing avenues for fund raising and alternative investments, the Central Government allowed a tax pass-through status to REITs in the Union budget of FY2016 – 17. In addition, in January 2017, SEBI allowed the mutual funds sector to invest in REITs. After a long wait and several relaxations by the Central Government and other regulatory authorities, India is likely to witness its first REIT listing this year.

The first half of 2018 witnessed several institutional investors procuring SEBI's approval to invest in India under REITs. Large institutional investors from Japan, the U.S. and Taiwan, among others are also eyeing the REIT investments in India.

*Source: Global REITs, Nareit.com, accessed on 14 September 2018

59. Banks sit on \$20 billion realty bad loans, Deccan Chronicle, July 2018

60. Insolvency and Bankruptcy Code (Second amendment) Bill, 2018, PRS India, accessed on 14 September 2018

61. Banks sit on \$20 billion realty bad loans, Deccan Chronicle, July 2018

62. Insolvency and Bankruptcy Code (Second amendment) Bill, 2018, PRS India, accessed on 14 September 2018

Key drivers of REITs^{63,64,65}:

- Underutilisation of over 20 billion worth of Real Estate Investment Trust (REIT) office stocks offering a potential rental yield of up to 7.5 per cent⁶⁶
- Need for driving a conducive investment environment
- Provide avenues of alternative investments for domestic and foreign investors
- Need for higher transparency and professionalism in the real estate sector

Impact of REITs^{67,68,69}:

Buyer

- Expected better returns for REITs as 90 per cent of the income to be paid as dividends to REIT investor
- Diversification of portfolio for investors especially for investors looking for regular yields
- Avenue for corporates with large pools of real estate assets to monetise these assets
- Continued growth of corporate leasing to enlarge the pool of REITable assets

Developer

- Cash-strapped developers monetise their existing property and benefit Indian investors with a new class of regular income option
- Alternate mechanism to raise funds for developer

What is next?

Policymakers

- Complete waive-off of one time stamp duty on transfer of asset to REITs or Special Purpose Vehicles (SPVs) owned by REITs
- In line with Singapore REITs, introduction of one-time waiver where specified period of years has passed with REIT holding a particular property
- Clarity on pricing guidelines for issuance of REIT units to foreign investors
- Relaxation on registration cost along with easy Long Term Capital Gains (LTCG) tax norms to attract more investments in Indian REITs
- Easy IRDA investment regulations to invite insurance companies' investments in India

- Redevelopment of properties either in a joint venture with private realtors or through the National Buildings Construction Corporation Limited (NBCC) appointment to introduce new class of assets for foreign investors
- Increased investment in long-term annuity assets by underinvested government organisations can open avenues for domestic investors as well
- Controlled regulatory landscape including changing tax implications
- Look into investors' expectations regarding capital appreciation – in addition to regular yields

“

REITs are poised to create a robust market for income generating assets, providing investors a regulated institutional platform. This is essential, given the scale and sophistication necessary for investments and management of these assets. Positive government policies and changes in regulatory frameworks have brought in more transparency and will go a long way in increasing investor confidence. REITs hold the potential to attract huge foreign investment into the country and also aid growth of the real estate sector which is one of the largest employment generators. It is my belief that this augurs well for the impending entry of REITs in India.

- Neel Raheja
Group President, K Raheja Corp

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63. Unfolding the era of new growth, KPMG in India, August 2017;

64. Real Estate Investment Trusts (REITs), KPMG, 2017;

65. What's new in Tax – Tax Reform and REITs, KPMG, January 2017

66. Traversing Through The Epic, Predicting The Curve, JLL, 2018

67. Unfolding the era of new growth, KPMG in India, August 2017;

68. Real Estate Investment Trusts (REITs), KPMG, 2017;

69. What's new in Tax – Tax Reform and REITs, KPMG, January 2017

The investment scenario: Exhibiting strength

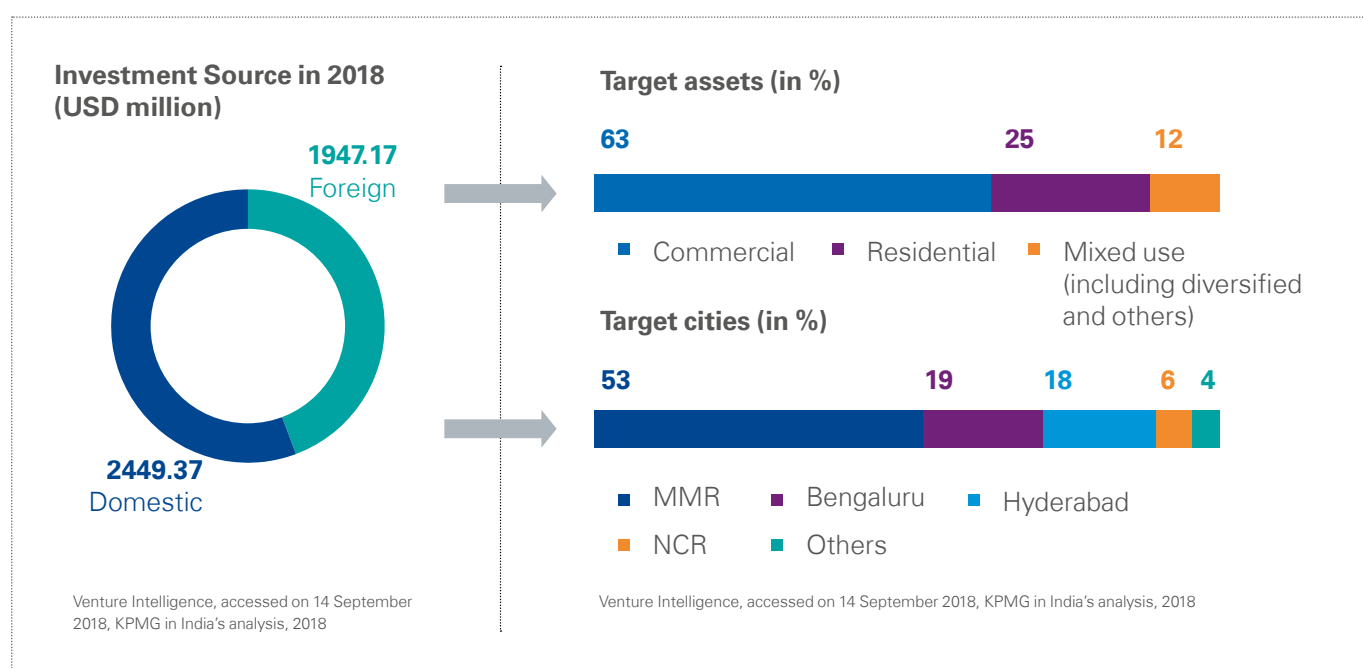


Introduction

Investment facts – 2018^{70,71}

- In 2018, average deal size tripled to USD157 million compared to USD47 million in 2016
- Overall, 44 per cent investments in 2018 are from foreign investors primarily from the U.S., Canada and Singapore
- Over 90 per cent of the foreign investment have preferred commercial projects across Mumbai, Pune, Bengaluru and Hyderabad
- Average deal size of foreign investors is USD149 million compared with domestic's USD 87 million
- Domestic investors have equally preferred commercial (USD 959 million) and residential (USD 870 million) projects.
- Overall, Mumbai has been the preferred destination attracting 53 per cent (USD 2 billion) of total investments. Most of these investments have come from foreign investors
- Hyderabad (USD 793 million) and Bengaluru (USD 694 million) are preferred destinations of domestic investors

Break-up of institutional investments in 2018⁷²



70. Venture Intelligence, accessed on 14 September 2018

71. KPMG in India's analysis, September 2018

72. Venture Intelligence, accessed on 14 September 2018



Conventional financing shifting to institutional financing

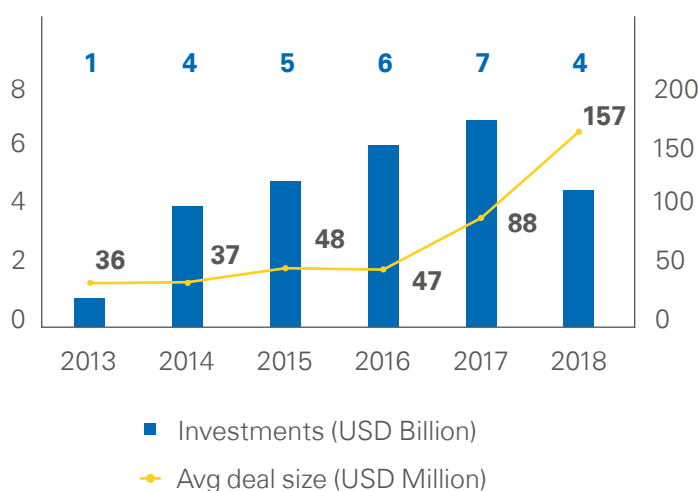
India's real estate sector has been experiencing a shift from bank lending to Private Equity (PE) funds, pension funds and Non-Banking Finance Companies (NBFCs). Post the current government coming into power in 2014, sentiment improved, and it reflected in the strong recovery of the real estate sector in general and the office markets in particular.

Rising non-performance assets (NPAs), higher risk provisioning and rising losses in the real estate industry

have led to significant reduction in credit by banks. 75 per cent⁷³ of the institutional funding is met through PE investments and NBFCs, which is in sharp contrast to 2010, where less than one-fourth funding came through these channels.

Along with the introduction of various reforms in the real estate sector, high growth in the housing finance segment has resulted in increasing institutional funding in the sector as increasing number of individuals prefer financing their property purchase through home loans from banks and housing finance companies.

Private institutional investment (excluding banks)



Over 50 per cent of total investments during 2013-YTD 2018, have been recorded over the past 24 months alone

- Compared to 2016, deal size tripled in 2018
- Indian realty witnesses billion dollar plus deal in Mumbai and Gurgaon.

Private institutional investors comprises of PEs, NBFCs, SWFs and Pension Funds through debt and equity routes

Source: Indian real estate: Decoding institutional investments, KPMG in India, September 2017, Venture Intelligence, KPMG in India's analysis, September 2018

Increase in PE investments post-reform period⁷⁴

The main focus of PE investors was in commercial, affordable housing, logistics and warehousing due to steady rentals and rental yield. A key driver for fueling PE investments has been the growth in the number of buyouts.

The average investment per deal improved more than two times from USD40 million in 2011 to USD88 million in 2017. In the first six months of 2018, the average investment per deal was USD157 million. This is almost four times the average investment per deal in 2011.⁷⁵



The industry is likely to witness accelerated growth momentum for new sectors including student housing, senior living, warehousing and rental housing

73. Private Equity now funds 75% of Indian property market as banks pull out, Economic Times, March 2017

74. PE inflow into real estate zooms to a 9-year high at INR 42,800 cr (USD 6.6 bn), Cushman & Wakefield, January 2018

75. Realty Asset Monetisation 2018-An Overview, Knight Frank, June 2018

Increasing interest of investors towards commercial real estate



50 per cent of the total PE investments during 2016-18, were invested in commercial real estate including offices and retail properties

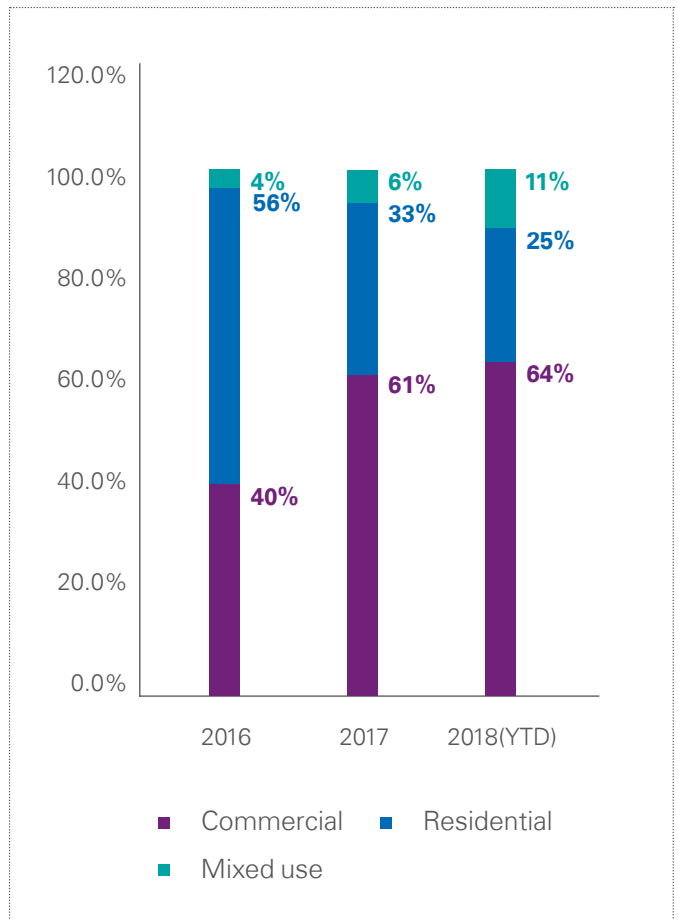
There has been an increasing focus of PE investors towards office real estate with the aim of building a portfolio of rent-yielding assets.

PE inflows in 2014-17 in office real estate has risen by over 150 per cent⁷⁶ than the previous seven years' inflows combined.

Steadiness in the commercial office sector, stable returns on investments, strong impetus in leasing, and the potential to list income-yielding assets under REITs have encouraged investors towards this sector.

There is increasing interest in office space and anticipation of increase in demand and rental growth by foreign players due to recovery of global growth, scarcity in supply of good quality office spaces, high rental growth and improvement in India's real estate sector due to various reforms.

Commercial properties attracting major investments - break-up by asset classes



Source: Venture Intelligence, accessed on 14 September 2018, KPMG in India's analysis, September 2018

76. Realty Asset Monetisation 2018-An Overview, Knight Frank, June 2018



Gaining preference towards affordable housing projects

Residential market has been reviving on account of clarity of the implications of RERA and GST coming into picture. Also, the government's push towards affordable housing is helping this segment gain traction and attract developers and investors.

Affordable housing segment poses an opportunity for the investors due to massive unmet demand for homes and the government's initiatives to create affordable housing stock and transparency in the sector through Housing For All by 2022 project, RERA and Pradhan Mantri Awas Yojana (PMAY). Granting of infrastructure status to affordable housing and extending benefits of the PMAY, the government has given further push to this segment.

Several funds are investing huge amounts in affordable housing due to increased demand and government incentives. Public Private Partnership (PPP) initiative allows central subsidy of up to INR0.3 million⁷⁷ 2 per house to be built by private developers and INR0.3 million per house as interest subsidy on bank loans under PMAY (U).

Challenge for PE funds in raising and deploying capital for residential projects

Real estate developers/investors are facing challenges in raising funds for residential projects as investors are skeptical towards the housing sector, despite the government's launching of various policies towards affordable housing. Deploying capital is also challenging as home sales remain low, there is unavailability of mature assets and high investor expectations persist.

Despite decreasing PE investments in the residential sector, NBFCs are lending to the housing segment as the cost of capital is lower and many developers prefer debt over equity. However, more equity investments are expected in the future with the market getting streamlined and becoming transparent.

77. Govt unveils new PPP policy as part of push for affordable housing, Livemint, September 2017





Technology: Adoption is key

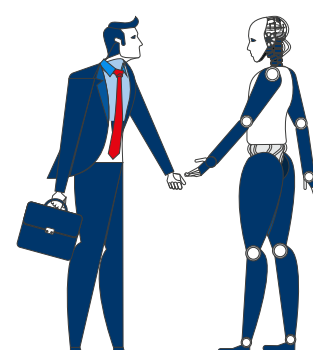


Introduction

The real estate sector is witnessing an influx of opportunities driven by government reforms, initiatives and convergence of digital and emerging technologies such as blockchain, Artificial Intelligence (AI), Augmented Reality (AR)/Virtual Reality (VR) and Internet of Things (IoT). These technologies are enabling real estate developers to provision better products and services, while also impacting how they can effectively interact with potential customers.

Advances in both Information Technology and Operational Technology is transforming how offices

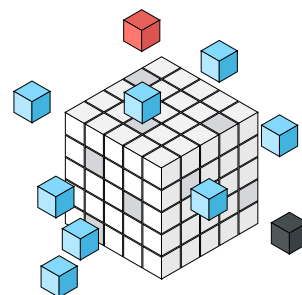
and commercial estates will be operated and managed in India. Real estate tech has now grown from initial phase of software and marketplaces to advance phase of technologies which is helping incumbents of the new era in resolving traditional issues of yesteryears. Emerging technologies are helping new era, forward looking real estate companies to derive value propositions by targeting specific issues in real estate with technology capabilities, readily available now.



Blockchain^{78,79,80,81}

Issue 01

Keeping transparency in land ownership rights, maintaining land records, procuring goods and services at the right price from a reliable source have posed various challenges in the real estate sector. It is estimated that on an average, USD700 million is being paid in bribes at land registrars across India each year



Definitions



Blockchain, essentially is a dynamic encrypted and time stamped ledger of blocks (records) which offers reading rights to the public but editing rights only to the rightful user.

Implications



Land registry records secured via blockchain can be used by stakeholders and third parties such as real estate agents, banks and potential buyers as single source of truth, resulting in cost and time savings, in addition to preventing fraudulent transactions. Also, blockchain can help developers to choose the right source and track real time transactional data on raw materials. Many state governments (Maharashtra, Telangana, Andhra Pradesh and West Bengal) are exploring opportunities to integrate blockchain-based ledger in the digital land record system to create a shared, secure, transparent and reconciled database of information. There are multi-level benefits of using blockchain for India

- Title fraud elimination and boost to tax revenue collection
- Minimal involvement of intermediaries lowering transaction costs and corruption
- A boost to tax revenue collections
- Digitisation of records, implementation of RERA and GST are the building blocks for the Indian real estate sector to emerge as a transparent and buyer-friendly ecosystem
- According to KPMG Global proptech survey 2017, 89 per cent organisations surveyed feel that traditional real estate organisations need to engage with PropTech companies in order to adapt to the changing global environment.

Use cases



- The state government of Andhra Pradesh has partnered with Swedish start-up to build its blockchain-based solution. Swedish start-up has already piloted a blockchain project in Sweden focused on the process of buying and selling real-estate.
- Fintech firm in Andhra Pradesh to provide blockchain-enabled security for land record in Amaravati, the capital region of Andhra Pradesh.^{82,83}
- In 2018, NITI Aayog highlighted its efforts towards IndiaChain, a blockchain infrastructure for managing public records and building social applications, which will also be used for maintaining land records⁸⁴.

78. An Indian state wants to use blockchain to fight land ownership fraud, CNBC, October 2017

79. Virtual reality, AI, blockchain to radically transform Indian real estate, Housing.com, July 2018

80. Using blockchain to make land registry more reliable in India, UNDP, May 2018

81. Indian State Partners With Blockchain Startup for Land Registry Pilot, Coindesk, October 2017

82. Andhra's pilot shows the world how to put land records on blockchain, Business Standard, November 2017

83. Can blockchain solve land record problems?, Livemint, April 2018

84. NITI Aayog works on strategy to leverage blockchain technology, Economic Times, March 2018

Cybersecurity^{85,86}

Issue 02

KPMG U.S. in its 2017 Real Estate Industry Outlook survey revealed that real estate leaders are recognising their company's increased exposure to cyber risk and close to one-third of the real estate leaders reported that their company had experienced a cybersecurity issue over the last 24 months.



Definitions



Cybersecurity is a collection of tools, ideas or policies used to safeguard privacy and risk of individual or cyber-surroundings which includes organisations, systems or digital assets.

Implications



As real estate businesses become increasingly reliant on technology, their exposure to cyberthreats and data breaches keep increasing. The rise of smart buildings is driving the usage of technologies such as IoT, cloud and mobility to provide personalised experience in room to occupants. These companies are holding increasing volume of personal data relating to individuals, which needs to be safe guarded at the company's end.

As per KPMG Global PropTech Survey 2017, 23 per cent of total 331 global real estate leaders surveyed feels that customer data will be the second most disruptive factor due to digital/ technological innovation over the next three years after real time asset performance (25 per cent of total respondents are from ASPAC region).

Building management system (BMS) or building information modelling (BIM) help in monitoring and controlling the building's mechanical and electrical equipment including security systems. These computer based systems, if not secured, can result in safety issues and physical harm.

Use cases



- An Indian and a Russian firm have signed an agreement to develop a cybersecurity system and e-governance solutions for three smart cities in India⁸⁷.
- Technology solutions provider in Canada has partnered with a cybersecurity company to develop cyber defence platform which will help companies in protecting the networks and technologies of smart buildings.

85. Indian, Russian firms sign an agreement to cooperate in smart city projects, cyber security and e- governance, First Post, October 2017

86. Cyber Protection for Real Estate Requires New Strategies: Hunt. Isolate. Protect., PRNewswire, June 2018

87. Indian, Russian firms sign an agreement to cooperate in smart city projects, cyber security and e- governance, First Post, October 2017



Data analytics^{88,89,90}

Issue 03

Real estate market has been termed complicated and volatile by investors. Developers, on the other hand, struggle to objectively assess and reach to the future buyer or investor. Companies in the sector, too, are stressed to improve operational efficiency and customer experience.



Definitions



Analytics is a process of collecting and refining data to uncover, unknown correlation and patterns, customer preferences, trends and other pertinent information that can help an individual or a company make more-informed business decisions.

Implications



By understanding the customers' pain points and where they tend to fall off the home purchase decision, the real estate developer monitors and guides the customer across the property purchase life cycle. Thus, data analytics is not only enabling developers reach buyers who are willing to invest, but is also helping them identify key purchase levers and propositions for value-add. By modeling customer purchase patterns, companies have improved sales conversion rates by up to 50 per cent.

Also, by integrating geospatial information with online real estate portals, customers can analyse local surroundings, sale patterns and neighborhood personality of each area. By gaining better insight into their potential property purchase or rent, customers are able to reduce the risk of investing in the wrong property.

Within Commercial Real Estate (CRE), developers are leveraging building intelligence and data analytics to improve building responsiveness and performance while reducing building management costs. By integrating concepts like 'smart lighting' and utilisation sensing technologies with the building management system, CRE operators are enhancing the profitability and desirability of the commercial estate, thereby driving both occupant and end-client experience.

Use cases



- Indian real estate tech start-up has empowered developers through predictive analytics platforms and real time dashboard to predict expected delays in under construction projects and help developers benchmark projects, contractors and employees⁹¹.
- An online portal in Hyderabad uses big data and analytics on an intelligent search engine which helps customers analyse and present data relevant to their needs⁹²

88. Smart City Mission, Link; accessed on 5 September 2018

89. Tech Disruption: Data analytics, AI to have significant impact on real estate landscape, IndianExpress, December 2017

90. Real estate grows big with big data, allerin, October 2017

91. How FalconBrick Is Aiming To Digitise India's Unorganised Real Estate And Construction Sector Worth \$165 Bn, inc42, December 2017

92. How the Big Data is changing the future of Hyderabad Real Estate, propertyadviser, September 2018

Internet of Things (IoT)^{93,94}

Issue 04

The rise in urbanisation and trend of affordable housing is leading to increased utilisation of scarce water resources in addition to greater burden on the electrical supply infrastructure - leading to greater wastage of precious resources. IoT promises value delivery on optimising resource management along with many more innovative use-cases for the real-estate sector.



Definitions



IoT is the network of physical devices embedded with electronics, software, sensors and actuators enabling them to connect and exchange data.

Implications



The concept of IoT can play a pivotal role in minimising the wastage of resources in residential and commercial real estate across the country. Several IoT solution companies are currently offering services that are changing the way real estate functions, allowing managers, tenants, and building owners to control various operations of a unit or building. This allows real estate providers to create key differentiators by providing smart solutions to customers by controlling different systems at homes and offices. Additionally, IoT or connected devices could also be used to enhance safety during the construction phase of properties. IoT can provide a wide range of solutions in the real estate sector:-

- Increased efficiency in energy utilisation within both commercial and residential real estate properties
- Enhanced safety during the construction phase as machines would be able to send out an alert in advance regarding fatigue and provide timely breakdown alerts
- Lowering the load on urban utilities infrastructure such as electricity, water and waste management
- Powering the demand of smart cities in India – As per KPMG in India's report 'India soars higher, 2018', over 95 million citizens across 90 cities directly benefitted by the 'Smart Cities' mission

Use cases

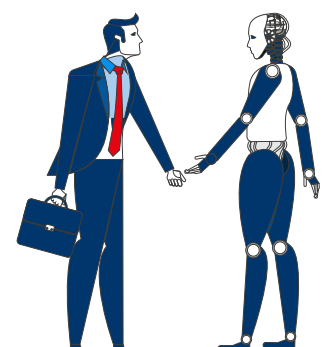


- Several start-up firms in India are using IoT in constructing 'smart homes'. A recently launched software named 'Erika' keeps a tab on the electricity usage of electronic appliances in the house and informs in case of any unusual power usage, thus bringing down the maintenance costs at household and overall environmental level⁹⁵

93. IoT – The new construction intelligence, JLL, October 2017

94. Reasons Why the Real Estate Industry Should Cozy Up To IoT, WIPRO, accessed on 14 September 2018

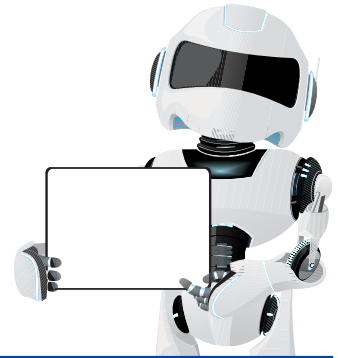
95. Startups are bringing IoT and AI to real-estate, Hindustan Times, April 2018



Artificial Intelligence (AI)^{96,97,98,99}

Issue 05

Home-buyers and renters in India are traditionally dependent on middle men and their ability to sell to customers. It is estimated that Indians collectively paid upwards of INR500 billion as brokerage fee for finding a house on rent annually



Definitions



Artificial intelligence (AI) refers to the ability of machines and systems to perform a variety of cognitive tasks, such as sensing, processing oral language, learning, making decisions and manipulating objects.

Implications



Home-buyers can leverage Artificial intelligence software's when looking for more information regarding available properties. Individuals can get information on common questions from bots, rather than reaching out to an agent. AI can also assist buyers, sellers and agents alike in aspects pertaining to data management, data-driven insights, lead management, pricing valuations and customer interactions. AI can enable the evolution of the real estate on account of algorithms that could limit brokers from infiltrating the communication between buyers. AI can provide tangible benefits in the real estate sector in India, by;

- Increased transparency and lowering cost of acquisitions for home-buyers and renters in terms of access to accurate information
- Processing vast amounts of data in the search for useful information for marketers, resolving pricing discrepancies in the real estate market by taking into consideration factors such as transportation, infrastructure, improvements, environment changes, neighborhoods that affect the property price

Use cases



- Real estate firms in India are utilising AI-powered humanoids to recorded visitor data and their queries, partially replacing usual sales staff. These humanoids are part of a larger plan to completely 'dehumanise' its sales process, build a strong data of potential home-buyers and sell homes solely online.

96. AI removes real estate intermediaries, creating positive user experience, Livemint, July 2018

97. Realty firms tap AI, big data to push sales, Livemint, July 2018

98. How AI is Changing the Real Estate Industry, Analytics India, November 2017

99. Startups are bringing IoT and AI to real-estate, Hindustan Times, April 2018

“

Real estate in India is on the cusp of transformation. So are the customer expectations. Digi-tech is playing huge part in influencing the sector. Big Data Analytics, AR/VR, 5D BIM, Artificial Intelligence, robotic process automation, drones, mobility – you name it. It is impacting key business aspects such as project conceptualisation, design, execution, customer acquisition, customer delight and compliance.

Smart homes, smart cities are gathering momentum. Affordable housing drive will be powered by technology. Technology has already enabled deployment of innovative business models in commercial as well as residential sectors. The future clearly belongs to the quick adopters.

- Sanjay Dutt

Managing Director & CEO,
Tata Housing Development Company Ltd

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Realising the challenges¹⁰⁰

The pace of change in technological advancements brings forth its own set of challenges. The real estate sector in India is already grappling with multiple reforms and regulatory requirements (such as RERA and upcoming Personal Data Protection Bill (PDP Bill)) shall also have to deal with growing concerns of technology at large. Stringent regulations and compliance norms,

technology-driven operational complexities, cost of emerging technology adoption, value management, cybersecurity, data-privacy, third-party risk management have become key concerns for every organisation in the world.

Some of the key concern areas that need to be addressed are:

Regulatory

- Readiness to adhere with multiple regulatory and compliance requirements such as GDPR, PDP (post implementation)
- Technology alignment with compliance requirements and continued business operations

Security

- Connected technologies enabled via IoT may lead to severe, disruptive cyberattacks crippling an organisation or a business across geographies
- Frequent and high value financial transactions which are a key part of the real-estate market may lead to the sector being a target for ransomware attacks

Culture

- Relatively low awareness levels around cybersecurity and data privacy

Operational

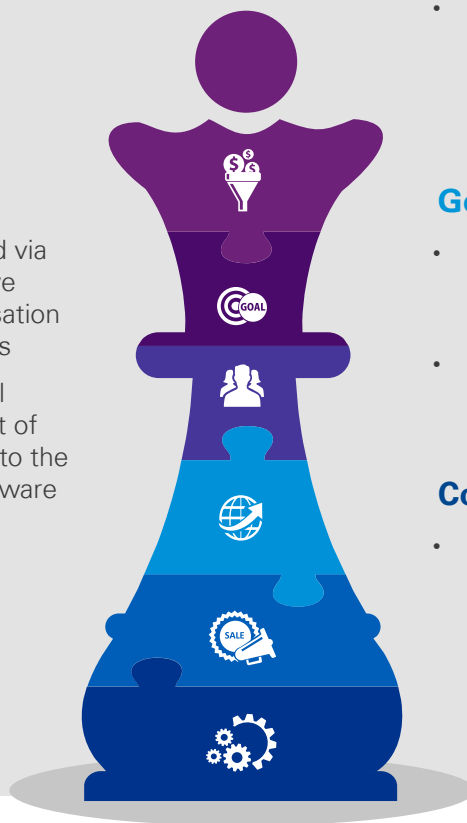
- Time complexities associated with adoption of new technologies
- Cost-benefit factor of digitising key business processes

Governance

- Highly decentralised operations and inconsistent governance practices across the industry value-chain
- Considerable reliance on third parties across the industry value chain

Consumer

- Increasing digitisation and automation leading to increased storage, processing and transfer of sensitive personally identifiable information (PII/SPI) and financial information related to customers and employees



100. KPMG in India Analysis, September 2018

Way forward¹⁰¹

There remains little doubt about technology's role as a key enabler and growth driver of the Indian real estate sector. The government has been actively promoting the use of existing and emerging technologies through its 'Smart City' initiative, to support this future growth in urban areas. However, there is an increasing need for public-private-partnerships and private ventures to enable building efficiencies in the real estate ecosystem.

With the possible deployment of technology, there remains a broad array of opportunities lying ahead of entrepreneurs and investors. Automation of legacy system, elimination of low value intermediaries will lead to a transparent ecosystem for customers that will make them feel empowered and valued. The need of the hour is to embrace the subtle shift customer-centric environment to remain relevant in the business.

Today, the focus of cybersecurity has shifted from preventive measures towards building early detection and response capabilities. Acknowledging that an attack is inevitable, cities and corporations globally

are turning towards cybersecurity insurance which cover hackers' extortion demands, legal liabilities, computer-forensics expertise and costs for problems like having dysfunctional government services. It has become imperative for real estate companies to invest in an effective risk management framework armoured with cyber security capabilities, strong governance programme, effective compliance management, structured value management office and adopt a cyber-aware culture to ensure continued endeavour towards a sustainable growth path.

In India, the demand for cyber insurance covers from banks, telecom and e-commerce have risen sharply. However, with the government focusing on strengthening cybersecurity and data privacy laws, demand for cyber insurance policies from the real estate sector is expected to strengthen in medium to long-term.

“

Real estate sector in India has traditionally been lagging behind other sunrise sectors in adopting new technologies. However, due to major government reforms such as RERA and GST there has been consolidation in the sector and reputed developers sense an opportunity to expand their scale of operations. This expansion needs to be backed by various technological interventions to ensure improved efficiency and transparency, which will help in achieving the ultimate goal – customer satisfaction. We are already witnessing a sea change in the way our industry is embracing and adapting to innovative designs, planning tools, software and technologies that provide better control over construction progress and ensure quality within defined budget. We are also using analytics to track and understand customer preferences. I am personally very delighted to be on the cusp of a digital revolution in our sector which will potentially transform the way we operate.

- Vikas Oberoi
Chairman & Managing Director,
Oberoi Realty

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101. KPMG in India Analysis, September 2018



KPMG in India contacts:

Mritunjay Kapur

National Head

Markets and Strategy

Head - Technology, Media and Telecom

T: +91 124 307 4797

E: mritunjay@kpmg.com

Pradeep Udhas

Office Managing Partner

West

T: +91 22 3090 1515

E: pradeepudhas@kpmg.com

Neeraj Bansal

Partner and Head

ASEAN Corridor

Building, Construction and Real Estate

T: +91 0124 334 9068

E: nbansal@kpmg.com

KPMG.com/in



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