
Transforming
Real Estate
Through Innovation

www.awfficity.capital

Table of Contents

Executive Summary	3
Why Real Estate?	4
Market Size for Real Estate	5
Growth Drivers	6
Market Trends	7
Subsectors for Real Estate	8
Investment Landscape of Real Estate Sector	10
Regulatory Compliances	12
Key Risks and Challenges	14
Initiatives taken by Government in Real Estate Sector	15
Future of Real Estate Sector in India	16
How integration of AI is helping the Real Estate Sector	17
Conclusion	18

Executive Summary

Over recent years, India's real estate sector has exhibited extraordinary resilience and is projected to grow at a compounded annual growth rate (CAGR) of 18.7 per cent from 2020 to 2030. With India's real estate sector set to hit \$1 trillion in revenue by 2030, making a substantial contribution to the nation's GDP, prop tech has emerged as a key driver of this growth.

Technological advancements have brought about a significant transformation in the Indian real estate sector, revolutionizing the way consumers engage with the market. Research indicates that a staggering 95% of potential homebuyers now initiate their property search online, with 51% ultimately completing their transactions through digital channels. The Prop tech landscape has also undergone a remarkable evolution, with the number of firms in this sector skyrocketing from just two in 2016 to over 1,400 by 2022, a surge catalysed by the inception of the Startup India Campaign in 2015.

The technological revolution in the real estate industry has not only transformed how businesses operate but has also enhanced financial practices, enabling better tracking of real estate projects prior to payment disbursement. Moreover, the Real Estate Regulatory Authority (RERA) mandates builders to identify site anomalies, a task simplified by prop tech solutions. These advancements ensure that homeowners will receive residences of superior quality in the end.

Over the last ten years, investment in Prop tech in India has seen remarkable expansion, demonstrating the industry's capacity and endurance. Despite the obstacles encountered in 2022, the Prop tech sector is still advancing positively. With the increasing need for technology-powered real estate solutions, Prop tech startups are in a strong position to influence the industry's future, making it more accessible, transparent, and efficient. Investors can confidently invest in this transformative sector, which is set to redefine India's real estate sector in the coming years.

India's real estate sector has experienced substantial changes due to investor friendly FDI policies, improved transparency, and various regulatory measures. Key initiatives such as the Real Estate Regulation and Development Act (RERA), guidelines for Real Estate Investment Trusts (REITs), amendments to the Benami Transactions (Prohibition) Act, and the implementation of the Goods and Services Tax (GST) have collectively contributed to attracting both global and domestic investments. These reforms have not only enhanced the sector's credibility but also increased its appeal to investors.



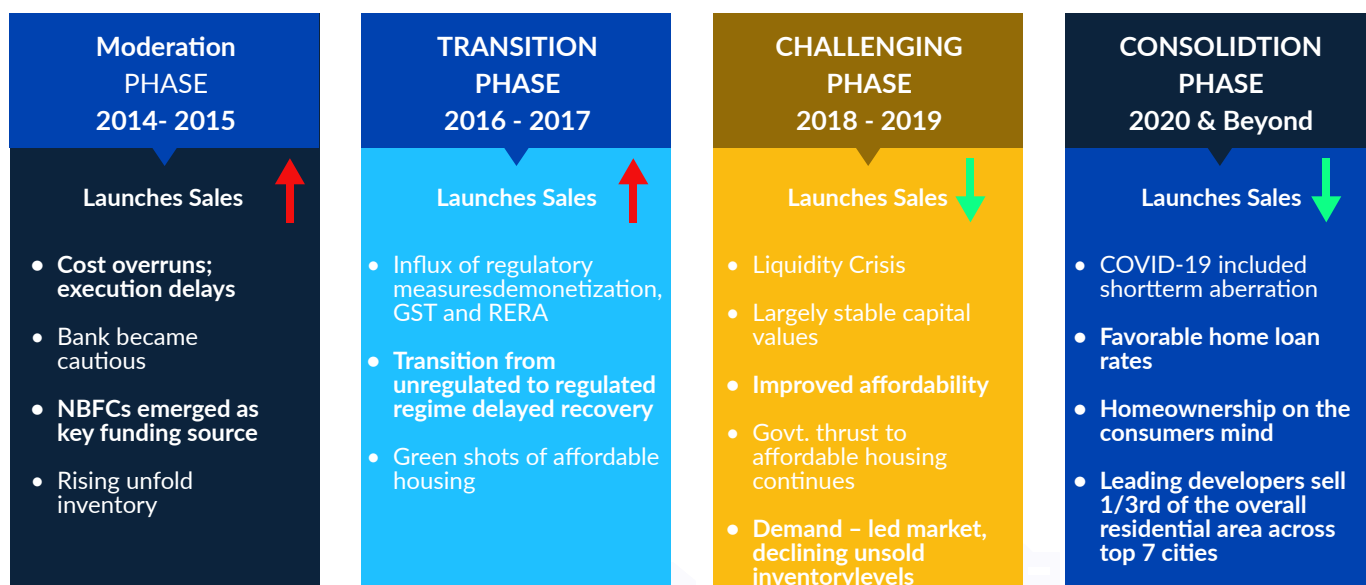
Why Real Estate?

Key factors that led to the evolution of the Indian real estate sector over the last decade fuelled by rapid urbanization, increasing disposable income, liberal credit policies, allowance of foreign direct investment (FDI) to the extent of 100% in real estate, reforms, and stimulus etc. All these factors have impacted the sector not only in the form of increasing number of launches and sales, but also in terms of evolving buying behaviour, improved affordability, and an extension of market presence from metropolitan areas to tier-2 and tier-3 cities.

The Real Estate sector is a significant contributor to India's economy, accounting for 7.3% of the GDP. The sector has been attracting substantial private equity (PE) investments, with an expected USD59.7 billion by 2047. In the first half of 2023 alone, the sector received USD1.8 billion of PE investment in office stock. This growth is expected to continue, with the real estate sector projected to contribute 15.5% to India's GDP by 2047.

Affordable housing is likely to become a major catalyst for growth, supported by favourable conditions such as low non-performing assets in home loans and the potential for interest rate adjustments. Additionally, infrastructure development aimed at improving connectivity is projected to positively influence residential real estate development in tier II & III cities.

Mapping the residential real estate transformation journey



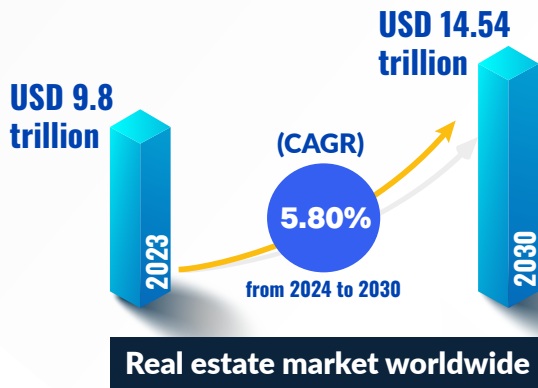
The adoption of Prop Tech is poised to revolutionize property transactions by integrating innovative technologies, enhancing efficiency, and fostering trust. Developers and investors are eagerly anticipating significant shifts in the industry in the coming years, as these technologies continue to evolve and reshape the way business is conducted.

[https://www.naredco.in/sites/default/files/State%20Chapter/Navigating%20the%20dynamics%20of%20real%20estate%20in%20India%20\(Web\).pdf](https://www.naredco.in/sites/default/files/State%20Chapter/Navigating%20the%20dynamics%20of%20real%20estate%20in%20India%20(Web).pdf)

https://www.naredco.in/sites/default/files/State%20Chapter/Real_Estate_Unboxed_The_Modi_Effect_5ef38a29b7.pdf

<https://www.nextmsc.com/report/real-estate-market>

Market Size For Real Estate



- CAGR growth in investments between 2010 and 2021 – 55%
- Real estate sector contributes 18% to the total employment in India.
- The real estate industry plays a pivotal role in influencing numerous related sectors, including cement, steel, iron, paint, furniture, and other construction materials.



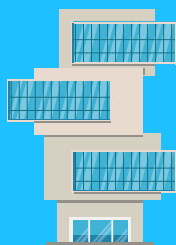
Growth Drivers

Real Estate Investment Trusts (REITs)

Four REITs were listed in India as of May 2023, comprising three office REITs and one retail REIT. The REITs have seen an increase in investment in office spaces, which have grown from 24.8 million square feet in March 2019 to 74.4 million square feet in March 2023, a three-fold expansion.



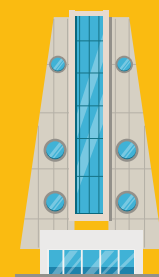
Fractional Ownership



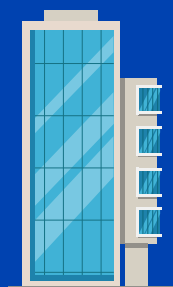
The demand for fractional ownership is expected to continue to grow, driven by the rise of hybrid working models and the need for cost-effective and agile office solutions. This investment model provides high appreciation potential, easy tracking and diversification benefits. The market size in India was USD5.4 billion in 2020 and is projected to reach USD 8.9 billion by 2025.

Enhanced usage of next-gen technologies

Further integration of next-gen technologies, encompassing IoT devices, automation systems and energy-efficient designs, will reshape the real estate landscape. For instance, Robotics Process Automation (RPA) will be used to create more efficient and cost-effective processes, such as automated property inspections or automated lease renewals; drones will be used to create more detailed and accurate 3D models of buildings or to provide real-time monitoring of construction sites.



Increasing Demand for Data Centres



In India, the demand for data centres is expected to grow at a CAGR of 48 per cent between 2020 and 2025. As a result, many real estate developers in India are now investing in data centre projects, either through greenfield developments or brownfield conversions of existing buildings. Investments are expected to reach USD5 billion by 2025.

Market Trends

Prop tech startups proliferation

The Indian real estate sector has seen a rise in prop tech startups, focusing on innovative solutions like AI-driven analytics and blockchain-based transaction platforms. Venture capital firms are increasingly interested in these startups, indicating growing confidence in technology's potential in the sector. **Prop tech startups raised a total of USD 2.4 billion in funds between January 2021 and March 2023. This includes USD 145 million raised by 69 early-stage startups and USD 2.3 billion raised by 39 growth-stage enterprises.**



Contribution to total economic output would grow from 7.3 per cent in 2022 to 15.5 per cent in 2047



Average property prices increased by 11 per cent, to around USD 82.1 per sq. ft. in 3Q2023 since 3Q20223



Around USD24.1billion was collected as stamp duty, land revenue and registration fees in FY2023



Contributes 18 per cent to the total employment in India, 2nd after the agriculture sector

Digital Transformation

Government initiatives, like the Digital India campaign, are creating a favourable environment for technology integration in the real estate sector. These initiatives streamline administrative processes, facilitating the sector's shift towards a more technologically advanced and efficient ecosystem.

Emergence of Prop Tech startups

Cities such as Bengaluru and Hyderabad have become hubs for prop tech innovation, hosting a burgeoning community of start-ups and technology firms that are revolutionising the Indian real estate landscape. These hubs serve as catalysts to foster an ecosystem where technology solutions are developed in response to the specific needs of the Indian market.

Subsectors for Real Estate

S.No.	Category	Definition	Examples
1	Real Estate Property Management Technologies that help in the day-to-day operation of real estate rentals.		
	Co-living	The co-living trend is part of a broader shift in the real estate landscape toward more flexible and community-oriented living arrangements. It addresses the changing needs and preferences of a growing demographic seeking alternatives to traditional housing models.	Stanza Living, Crib, HooLiv, Settl Etc.
	Co-Working	The current trends in this sector are shaping the future of coworking spaces and making them an even more attractive option for people who are looking for a place to work that is flexible, affordable, and conducive to productivity and creativity.	DevX, Awfis, Innovate Etc.
2	Real Estate Construction Management Construction technology refers to the collection of innovative tools, machinery, modifications, software, etc. used during the construction phase of a project that enables advancement in field construction methods, including semi-automated and automated construction equipment.		
	Collaboration and Project Management	Real-time process monitoring and tracking leading to a reduction in time delays and ensuring cost controls across project delivery stages.	Infra.Market, Brick and Bolt, Build Next etc.
	Real Estate Agent Tools	Technologies that help real estate agents do their job, as well as technologies that effectively automate it.	House Canary, Elara, Zillow premier agent etc.
	Building Information Modelling (BIM)	BIM is based on the idea that a building is a collection of interconnected objects. Each object has a set of properties that define its physical characteristics, such as its size, shape, and material.	Smart Vizx, Pinnacle Infotech, TreisTrek ,Build Sys etc.
	Cloud-based Project Information Systems	Cloud-based project information systems (PMIS) are software applications that help organizations manage and track their projects from initiation to completion.	Fieldwire, AapnaGhar, KiarX etc.
3	Real Estate FinTech FinTech in Real Estate derisks property transactions (buying, selling, and renting) by acting as an intermediary and ensuring contractual obligations.		
	Investment Management	Using data and analytics to identify and evaluate potential real estate investments and assessing the financial risks and potential returns of real estate investments.	D'quor Spaces co, KribX, Housing Etc.
	Alternative Lending	Alternative lending in real estate fintech refers to the use of non-traditional methods to provide loans for real estate investments.	PolicyGenius, Lemonade, Hippo insurance etc.
4	Real Estate Environmental Sustainability and Energy Efficiency	These companies focus on reducing the environmental impact of the real estate sector through sustainable practices and energy-efficient solutions.	Green India Building Systems and Services (GIBSS), Greenbuds Design Tech, Made in Earth, Uravu Labs Etc.

Subsectors for Real Estate

S.No.	Category	Definition	Examples
5	Real Estate Interior Designing Real estate technology (RETech) is transforming the interior design industry by providing new tools and resources that are helping designers to create more efficient, effective, and personalized interiors.		
	Furniture Tech	Recognizing the impact of digitization and changing lifestyles of today's demography, furniture rental companies are looking forward to innovating leading to become one of the most important sub sector in today's Real Estate Space etc.	Furlenco, Pepper-Fry, Rentomojo Etc.
	Rental Tech	The rental industry is undergoing a significant transformation, driven by technological advancements that are enhancing the overall rental experience for both tenants and landlords.	MagicBricks, 99acres, Grafen Etc.
6	Real Estate Hospitality	Modern systems have evolved from basic booking and reservation tools to comprehensive management platforms, automating tasks like guest check-in/out, inventory management, and revenue reporting.	Oyo, FabHotels, Treebo etc.



Investment Landscape

For Real Estate

Major Real Estate Investors in India

S.no.	Investor	Real Estate India investments
1	Inflection Point Ventures	11
2	Accel	9
3	Titan Capital	8
4	Unitus Ventures	8
5	Foundamental	7
6	Artha Group	7
7	Varun Alagh	7
8	India Quotient	7
9	Kunal Shah	6
10	ah! Ventures	6
11	Singapore Angel Network	6
12	Gruhas	6
13	LetsVenture	5
14	Rajesh Sawhney	5
15	YourNest Venture Capital	5
16	Venture Highway	5
17	Picus Capital	4
18	Redcliffe Capital	4
19	Earlsfield Capital	4
20	Brand Capital	4
21	Blume Ventures	4

During the last quarter, some large investments like **Edelweiss Capital** invested **\$178.8 million** in a commercial development by MFAR Developer, while **Kotak Alternative Investment Fund** along with **Abu Dhabi Investment Authority** invested **\$240 million** in Prestige Group's residential portfolio.

The total fund flow in the sector was reported at **\$1.6 billion** for the **first 3 months of the year**, a decline of **40%** compared to the same period in the previous year. However, India's real estate investments displayed an upward trend, with a **21% quarter-on-quarter increase**.



Investment Landscape

For Real Estate

Investment (Volume & Value)

Type of Investment	Deal Volume (#)	(%)Deal Volume	Deal Value (USD Mn)	(%)Deal Value
Angel Investments	15	20%	10	05%
Venture Capital	38	50%	154	8%
Private Equity	23	30%	1,703	91%
TOTAL	76	100%	1,867	100%

Active Investor

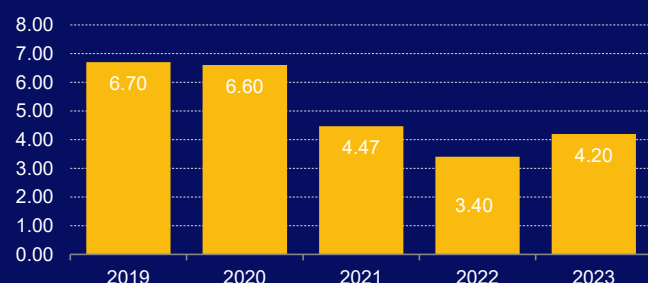


Private market investor, Blackstone, which has significantly invested in the **Indian real estate sector US\$ 50 billion** is seeking to invest an additional **US\$ 22 billion by 2030**.

Institutional investment in **real estate** increased **37% to US\$ 1.65 billion** during January to March 2023, driven by higher inflow in office and housing properties, according to Colliers.

In February 2023, **Mumbai** ranked at the **seventh position in Asia Pacific** as a preferred destination for cross-border investments in the real estate sector.

PE/VC Investments in Indian Real Estate (US\$ billion)



Regulatory Compliances

The Real Estate (Regulation and Development) Act, 2016 (RERA) is a crucial piece of legislation in India designed to regulate the real estate sector. It aims to protect the interests of homebuyers and enhance transparency and accountability.

Before RERA, the Indian real estate sector faced numerous challenges including lack of transparency, unfair practices, project delays, and conflicts between buyers and developers. Homebuyers encountered problems such as unclear contracts and deceptive advertising, which led to a decline in trust.

RERA was introduced to address these issues by ensuring transparency, timely completion of projects, and accountability among developers.



RERA STATUS – STATE WISE

S.no	State	Projects Registered since 2016	Agents Registered since 2016	Complaints Resolved since 2016
1	Andhra Pradesh	4,617	195	163
2	Assam	787	66	114
3	Bihar	1,572	528	3,251
4	Chattisgarh	1,745	799	1,993
5	Gujarat	13,009	2,666	5,751
6	Himachal Pradesh	185	117	107
7	Karnataka	6,646	4,643	1,020
8	Kerala	1,168	574	1,726
9	Madhya Pradesh	5,985	1,261	5,839
10	Maharashtra	45,128	47,253	16,806
11	Odisha	1,119	195	2,379
12	Punjab	1,259	3,160	3,307
13	Rajasthan	2,946	8,078	2,432
14	Tamil Nadu	18,915	2,962	2,920
15	Telangana	8,045	3,342	1,092
16	Uttar Pradesh	3,459	6,714	44,602
17	Delhi	101	719	645
18	Punjab	1,259	3,160	3,307
19	Goa	1,223	467	330
20	West Bengal* (HRERA)	1,280	419	NA
21	Haryana (Gurugram & PanchKula)	1,443	5,239	NA
	Total	121,891	92,557	97,784

Source: Respective State RERA Websites,
Compiled by **ANAROCK Research**

Regulatory Compliances

HIGHLIGHTS OF RERA



Escrow Account

According to RERA, developers are required to deposit 70% of the project funds in an escrow account, reserving 30% for administrative expenses. This measure aims to ensure financial accountability and transparency in real estate projects.



Transparency

In accordance with RERA regulations, builders are required to provide original project plans and are prohibited from making any modifications without explicit consent from buyers. This regulation ensures transparency and integrity in property development.



Fairness

RERA's distinctive requirement to price properties based on carpet area, rather than high-density area, ensures that homebuyers are offered fair and transparent pricing.



Quality

The distinctive provision mandates builders to address buyer issues within 5 years of purchase, ensuring timely resolution within 30 days of complaint.



Authorisation

RERA prohibits regulators from participating in any real estate activities, such as marketing or selling, unless they are registered with RERA. This measure is intended to promote transparency and accountability.

CURRENT STATUS : As of February 2024



Registered Projects

1,22,553



Real-estate Agents

86,262



Complaints disposed-off

1,20,605

Key Risks and Challenges

Adoption and Integration

The real estate industry has been slow to adopt new technologies, and some stakeholders may be resistant to change.

For example, a prop-tech company that offers virtual tours or 3D modelling of properties may struggle to convince real estate agents or buyers to use its platform instead of traditional in-person showings.

Regulatory challenges

The real estate industry is highly regulated, and prop tech companies need to navigate complex regulations in order to operate legally.

For example, a prop tech company that offers a platform for short-term rentals may need to comply with zoning laws, licensing requirements, and tax regulations in each jurisdiction where it operates.

Privacy and security concerns

The use of technology in real estate can raise privacy and security concerns.

For example, a proptech company that collects data on properties and individuals may need to ensure that this data is kept secure and not misused. In addition, some stakeholders may be hesitant to share sensitive information, such as financial data or personal information, with a third-party platform.

Rising Costs and Affordability issues

Rising construction costs, land prices, and property taxes present major challenges for real estate developers and prospective homebuyers. Affordability issues may restrict housing access and affect the real estate market.

Real estate experts can investigate sustainable and economical construction methods to tackle this issue. Partnering with local authorities to endorse affordable housing programs and examining financing alternatives tailored for first-time buyers can also help mitigate affordability concerns



Initiatives taken by Government in Real Estate Sector

Pradhan Mantri Awas Yojana (PMAY)

This initiative aims to provide affordable housing for economically weaker sections and lower to middle-income groups, promoting homeownership among low- and middle-income households. The urban segment of the Pradhan Mantri Awas Yojana (PMAY), initiated by the Government of India, is designed to alleviate the housing shortage and offer affordable housing options to the urban poor and marginalized communities.

The rural segment of the PMAY, also launched by the Government of India, is tailored to cater to the housing requirements of rural regions. Its primary goal is to provide cost-effective housing to every rural household in India, ensuring a pucca house with basic amenities. This includes households currently without homes and those residing in kutcha (unstable) and dilapidated dwellings.

Smart Cities Mission

The Smart Cities Mission is being implemented through area-based development in selected cities, as well as through pan-city initiatives that benefit the entire city. Each selected city has to formulate a Smart City Proposal (SCP) that outlines its vision, goals, and strategies for smart city development. The mission has seen progress in various cities, with the implementation of projects related to infrastructure, technology, and sustainability.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

The Smart Cities Mission is being implemented through area-based development in selected cities, as well as through pan-city initiatives that benefit the entire city. Each selected city has to formulate a Smart City Proposal (SCP) that outlines its vision, goals, and strategies for smart city development. The mission has seen progress in various cities, with the implementation of projects related to infrastructure, technology, and sustainability.

Real Estate Investment Trusts (REITs)

In the non-residential segment will open channels for both commercial and infrastructure sector. In March 2019, Embassy Office Parks, India's first REIT, went public. India is likely to see the listing of at least four REITs on bourses from the second half of this year through the end of next year or early 2025. **First REIT raised Rs. 4,750 crore (US\$ 679.64 million)** and was launched in early 2019 by global investment firm, Blackstone, and realty firm, Embassy group. In July 2021, the Securities and Exchange Board of India lowered the minimum application value for Real Estate Investment Trusts from **Rs. 50,000 (US\$ 685.28) to Rs. 10,000-15,000 (US\$ 137.06 -US\$ 205.59)** to make the market more accessible to small and retail investors. **According to EY, US\$ 9.7 billion has been raised in India via real estate investment trusts (REITs) and infrastructure investment trusts (InvITs).**

Future of Real Estate Sector in India

Growing Demand for Sustainability in Real Estate sector:

1. Sustainable building designs prioritize green materials and maximize natural light and ventilation.
2. Sustainable financing includes green bonds, green loans, and sustainability-linked loans. Sustainable construction practices involve using recycled materials.
3. Sustainable operations encompass using energy-efficient appliances and adopting waste management strategies.
4. Sustainable communities are developed by incorporating green spaces, pedestrian and cycling infrastructure, and public transportation facilities.
5. Government is also working towards implementation of Sustainable Development in Real Estate Sector. Moreover, the Bureau of Energy Efficiency (BEE) and the Ministry of Power have been implementing energy efficiency programmes and the Indian Green Building Council (IGBC) has been partnering with central and state agencies to advance the green building movement . Some of the Examples depicted below in a pictorial Format:

Green Rating for Integrated Habitat Assessment (GRIHA)

- GRIHA, created by The Energy and Resources Institute (TERI) in 2007, measures parameters including energy use, waste and renewables to assess building sustainability.
- GRIHA v2019 added lifecycle, cost and water analysis and gave more weight to user feedback and experience
- The rating system has 10 categories with 100 points and five extra points for innovative projects. The rating goes from 1 to 5 stars, with 5 being the best and the certifications last for five years.

Leadership in Energy and Environmental Design (LEED)

- The certification measures building performance.
- LEED has upgraded to v5 with a focus on climate action, quality of life and ecological conservation and restoration
- Certifications depend on the credits earned on various criteria and need to be renewed every three years.
- India stands in third position among the top 10 countries for LEED Green Building in 2022.
- India awarded LEED certification to a total of 323 projects in 2022, covering 10.5+ million gross square meters (gsm) of space.

WELL building standard

- Helps developers focus on the health, wellness and safety of occupants.
- The rating system matches design, policy and built environment with health and wellbeing.
- WELL-certified projects get points for features, some of which use natural elements such as air and water to comfort occupants.
- WELL-certified office buildings boost employee productivity by 8-10 per cent with a better indoor environment.

How integration of AI is helping The Real Estate sector in India?

Enhanced Property Search and Analysis

AI-based property search and analysis tools are enhancing the real estate experience for developers, brokers, and buyers. Property search engines can analyse hundreds of attributes to match users with listings that suit their needs. AI algorithms consider factors like price, location, amenities, builder reputation, and more to recommend properties and even predict what buyers may be interested in. This helps buyers discover suitable options efficiently while enabling developers and brokers to provide a personalized experience.

Accurate Property Valuation

AI-powered valuation models can provide accurate estimates of a property's market value based on a wealth of data. This can be helpful for both buyers and sellers, as it can help them to negotiate a fair price. The use of AI and machine learning allows these models to consider a much broader range of factors beyond just the physical attributes of the property, leading to more precise valuations.

Virtual Property Tours and Visualization

Generative AI is enabling real estate companies to offer immersive virtual property tours and visualizations for potential buyers. These AI-generated mock-ups provide a realistic representation of the property's interior layouts, exterior outlook, and surrounding environment. This helps improve the buyer's decision-making process by allowing them to explore properties remotely before making a purchase.

Streamlined Property Management

AI is also being used to streamline property management processes. By automating tasks like tenant profiling, application processing, and inspection requests, AI can help property managers deal with large amounts of data more efficiently and reduce redundancies. This leads to increased operational efficiency and a better experience for both property managers and tenants.

Personalized Customer Experience

Developers and real estate companies are leveraging AI to provide more personalized experiences for their customers. AI-powered chatbots and recommendation engines can engage with multiple clients simultaneously, providing tailored suggestions and information based on their preferences and behaviour. This helps build stronger relationships and brand loyalty with tech-savvy customers.



<https://www.greenscapedgroup.co.in/blog/ai-revolution-in-indian-real-estate/>

https://www.naredco.in/sites/default/files/State%20Chapter/Real_Estate_Unboxed_The_Modi_Effect_5ef38a29b7.pdf

<https://www.constructionweekonline.in/people/artificial-intelligence-the-game-changer-for-indias-real-estate-sector>



CONCLUSION

The residential real estate market in India has undergone significant transformations over the past decade. Since the beginning of 2014, this sector has navigated through phases of expansion and contraction, influenced by a multitude of factors, including global and domestic economic scenarios, government regulations, and the unprecedented COVID-19 pandemic.

Despite these fluctuations, one aspect that has persistently remained unchanged is the accelerating demand for housing. This demand has become more pronounced with the implementation of each positive change in the industry. Periods of robust economic expansion, coupled with a rise in disposable incomes, have amplified the need for housing among Indian consumers.

The residential market has had to adapt to these dynamic conditions, with developers and real estate companies responding to the evolving preferences and requirements of homebuyers. Factors such as the availability of affordable housing options, improved infrastructure, and the integration of technology have played a crucial role in shaping the residential landscape.

The government's initiatives, such as the Pradhan Mantri Awas Yojana (PMAY) and the Real Estate (Regulation and Development) Act (RERA), have also contributed to the growth and development of the residential sector.

These policy interventions have aimed to address the housing needs of various income groups, enhance transparency, and protect the interests of all stakeholders.

As the Indian economy continues to grow and the middle-class population expands, the demand for residential properties is expected to remain strong. Real estate developers and companies will need to adapt to these changing dynamics, leveraging technology, innovation, and customer-centric strategies to cater to the evolving needs of homebuyers in the country.



DISCLAIMER

This report contains information and data sourced from secondary sources, the links to which are provided within the report.

The content has been compiled for internal use only and should not be distributed, reproduced, or used for any other purpose without appropriate authorization.

While we strive to ensure the accuracy and reliability of the information presented, we do not guarantee its completeness or current relevance.

All external sources referenced in this report are duly credited, and the original authors and publishers retain their respective copyrights. Any opinions expressed here in are solely those of the report's authors and do not necessarily reflect the views of the original sources.

