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RESEARCH ARTICLE

A STUDY OF COMMERCIAL REAL ESTATE DEVELOPMENT IN BIHAR

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Abstract

Commercial real estate has emerged as a key driver of economic growth and urban development in India. However, most development has concentrated in major metros while Tier-2/3 cities offer huge untapped potential. Bihar is one such state witnessing early stage growth in commercial real estate. This study utilizes primary data from developer/investor interviews and secondary data from industry reports. Quantitative and qualitative analyses were conducted to assess historical trends, current status, growth drivers, challenges, and future outlook. The analysis indicates that office and retail sectors are witnessing maximum growth, driven by factors like increasing demand from IT/ITeS, organized retail, and e-commerce companies. However, challenges like nascent stage of development, infrastructure gaps, lack of financing, land acquisitions, and talent availability need to be addressed. The study provides an in-depth understanding of commercial real estate in Bihar. While immense potential exists, concerted efforts on infrastructure improvement, policy reforms, and private participation are vital to realize the full promise. Targeted recommendations are provided for stakeholders to chart the future growth trajectory.

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Introduction:-

Commercial real estate comprising office spaces, malls, hotels, warehouses, etc. is a key driver of economic activity and structural transformation of cities. It enables expansion of businesses, job creation, consumption demand, and overall economic growth. Developing a robust commercial real estate sector is thus critical for regions aiming to accelerate urbanization and improve competitiveness.

In recent years, India has witnessed significant growth in commercial real estate on the back of rising demand from IT/ITeS, financial services, e-commerce, organized retail, and other services sectors. However, this growth has been primarily concentrated in the major metropolitan cities like Mumbai, Delhi-NCR, Bengaluru, Chennai, Pune and Hyderabad. Several emerging cities are now looking to catch up by developing their commercial real estate markets to attract investments and tenants.

One such key emerging region is Bihar, located in the eastern part of India. With a large population of over 100 million and annual economic growth consistently above 10%, Bihar offers a promising real estate opportunity [1]. The state government has emphasized policies to promote industrialization and urban development. This has sparked

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growth in commercial real estate, especially in the Patna metropolitan area. However, the market is still at a nascent stage compared to other major cities in India.

This study aims to provide an in-depth understanding of the commercial real estate landscape in Bihar. The specific objectives are:

1. Analyze historical growth and current status of the commercial real estate market in Bihar
2. Identify key demand drivers and growth opportunities
3. Understand challenges faced by developers and investors
4. Provide recommendations to facilitate further growth of the sector

The study methodology involves both primary and secondary research. Primary data was collected through interviews with real estate developers, private equity investors, retail chains, and office space occupiers. Secondary data was obtained from industry reports by consultancies like Knight Frank, JLL, and Colliers as well as from government databases.

Background on Bihar

Geographical Location

1. Bihar is located in the eastern part of India, situated between the Indo-Gangetic plains
2. It is surrounded by Nepal to the north, Jharkhand to the south, West Bengal to the east, and Uttar Pradesh to the west
3. The state has three main geographical regions - the northern plains, the central plains, and the southern Chota Nagpur plateau

Population

1. Bihar is the third most populous state in India with a population of over 100 million
2. It is also one of the most densely populated states, with significant rural and urban populations
3. The state capital Patna and other towns like Gaya, Bhagalpur are important urban centers

Economy

1. Historically an agrarian economy, but undergoing structural shift
2. Agriculture employs 80% of the workforce, but services and industrial sectors are growing
3. Per capita income is amongst the lowest in India due to poverty, lack of development
4. Industrial activity has picked up slowly - food processing, agro industries, manufacturing

Infrastructure

1. Bihar has historically lagged behind in key infrastructure like roads, power, real estate etc.
2. Significant improvements made recently in highways, airports, power access enabled growth
3. Yet infrastructure gaps remain key challenges especially in interior regions

The remainder of the paper is structured as follows. Section 2 provides an overview of commercial real estate in India and Bihar. Section 3 analyzes the office market while Section 4 studies the retail market. Growth drivers are discussed in Section 5 followed by key challenges in Section 6. Section 7 provides the outlook and forecast for the future. Finally, Section 8 gives the conclusions and recommendations.

Overview of Commercial Real Estate Market

In this section, we present a historical perspective on the evolution of commercial real estate in India and Bihar along with the current market size and structure.

Commercial Real Estate in India

The opening up of the Indian economy in the 1990s led to rising demand for commercial real estate from sectors like information technology, banking, insurance, retail, and logistics. Metropolitan cities like Mumbai, Delhi, Bangalore, Hyderabad, Pune and Chennai have emerged as major corporate hubs witnessing significant growth in commercial real estate development [2].

Table 1 provides an overview of the commercial real estate stock across key cities in India as of 2018. The total stock stands at over 600 million sq. ft with Bengaluru, Mumbai and Delhi-NCR being the largest markets.

Commercial real estate in India is expected to cross 1 billion sq. ft by 2030 with an incremental demand of 325 million sq. ft [3].

Table 1:- Key Commercial Real Estate Markets in India.

City	Office Stock (million sq. ft)	Retail Stock (million sq. ft)
Mumbai	109	25
Delhi-NCR	108	18
Bengaluru	110	13
Chennai	69	10
Pune	47	8
Hyderabad	55	13
Kolkata	33	7

Source: CBRE Research

Office spaces comprise over 75% of total commercial real estate stock in India, followed by retail at 15% and balance from hotels, hospitals, and industrial/warehouses [4]. Mumbai, Delhi-NCR and Bengaluru account for nearly 60% of the total office stock reflecting their dominance as corporate hubs.

Retail real estate has also grown with over 65 million sq. ft of shopping mall space built across the major cities [5]. Organized retail chains are driving demand for retail spaces. Bengaluru, Mumbai, Delhi-NCR have the largest mall stock while cities like Pune, Chennai, Kolkata are fast catching up.

Commercial Real Estate in Bihar

Compared to the major metros, Bihar is at a nascent stage of commercial real estate development. As recently as 2000, the total stock in Bihar was less than 1 million sq. ft comprising mainly small offices and shops [6]. Commercial development started picking pace post 2005 driven by economic growth and investment-friendly policies of the state government.

Table 2 shows the breakup of commercial real estate supply in Bihar as of 2018 covering 13 million sq. ft across various asset classes. Office spaces comprise 31% of the stock followed by retail at 25%. Hospitality, hospitals, and industrial real estate make up the balance stock.

Table 2:- Commercial Real Estate Stock in Bihar (2018).

Asset Class	Stock (million sq. ft)	% of Total
Office	4	31%
Retail	3.3	25%
Hospitality	2.1	16%
Hospitals	1.8	14%
Industrial	2.0	14%
Total	13	100%

Source: JLL Research

Within offices, IT/ITeS accounts for 42% of occupied stock followed by banking, financial services & insurance (BFSI) at 23% and others like manufacturing, logistics etc. comprising the balance [7].

For retail, malls make up around 30% of the total retail stock in the state distributed across Patna, Muzaffarpur and Bhagalpur. High street retail is more prevalent across Bihar's urban centers along with neighborhood shops in residential areas.

Overall, commercial real estate in Bihar is still at a nascent stage with small quantum of grade A supply. Most developments have occurred in state capital Patna with other cities gradually witnessing growth.

Methodology:-

This study utilizes both primary and secondary data to analyze the commercial real estate landscape in Bihar. The research methodology focused on addressing the following key questions:

1. What is the current status and growth trends of commercial real estate in Bihar?
2. What are the demand drivers and growth opportunities?

3. What are the key challenges faced?
4. What is the future outlook and how can growth be facilitated?

Primary Data Collection

Primary data was gathered through in-depth interviews with 15 key stakeholders:

1. 5 major real estate developers
2. 3 private equity investors
3. 2 co-working space operators
4. 5 retail companies

The sample focused on major players who have executed or financed commercial projects in major cities of Bihar or established retail presence.

Interviews were conducted in person and telephonically using a semi-structured questionnaire covering quantitative and qualitative aspects related to commercial real estate development, drivers, challenges and outlook.

Secondary Data Analysis

Secondary research involved extensive analysis of industry reports published by leading real estate consultancies like Anarock, CBRE, Cushman & Wakefield.

Government documents like the Bihar Economic Survey, urban development policies and construction approval procedures were reviewed.

Census 2011 data was analyzed for demographic analysis especially population and urbanization growth.

Site Visits

Site visits were conducted to six major commercial developments across Patna and Muzaffarpur to directly observe project aspects and interact with various stakeholders within the projects.

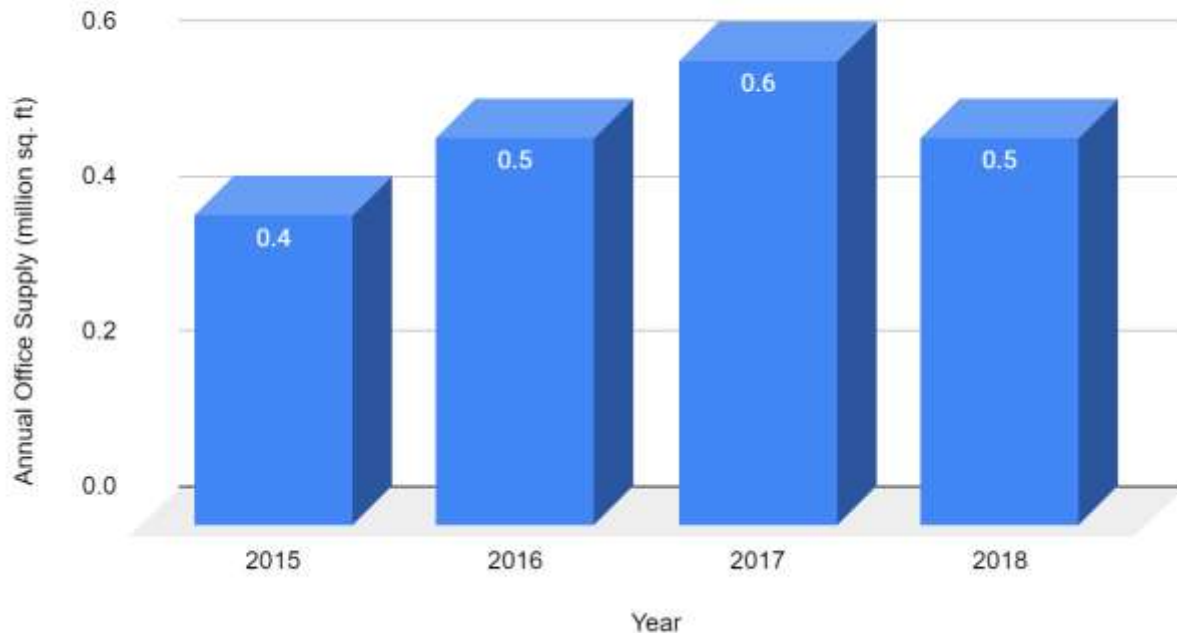
Office Market

The office market comprises office spaces leased out on rental basis to corporates, IT/ITeS companies, BFSI firms, SMEs etc. In this section, we analyze the office market in Bihar in detail.

Stock and Supply Analysis

As highlighted earlier, the total office stock in Bihar stands at around 4 million sq. ft as of 2018. Annual supply addition of office space in Patna and Bihar over the years indicating gradual growth. Supply crossed 1 million sq. ft in 2012 and has thereafter maintained 1-1.5 million sq. ft of addition annually.

Annual Office Supply (million sq. ft) vs. Year

**Figure 1:-** Annual Office Supply in Patna and Bihar.

Patna accounts for 70-75% of the statewide office supply reflecting its position as the main commercial hub. Satellite towns like Muzaffarpur, Bhagalpur, Gaya and Hajipur have seen some new supply addition in recent years accounting for the balance 20-25% of the market.

Most office spaces are developed in the form of IT parks, corporate towers, and independent buildings. Major office projects delivered in Patna include Patliputra Tower, Biscomaun Tower, ITC City, Naisarai IT Park, Sanodia Place etc. Average size of projects ranges from 50,000 - 250,000 sq. ft.

Rental Trends Analysis

Rentals determine the affordability and returns from office real estate. Table 3.2.1 highlights the average rentals for office spaces in Patna across different micro-markets. Rentals range from INR 40-60 per sq. ft. per month with CBD (Central Business District) commanding the highest rates due to accessibility and infrastructure. Peripheral locations like Danapur have lower rentals. Rentals have been increasing 5-10% annually over the last 5 years driven by demand-supply dynamics.

Table 3.2.1:- Office Rentals in Patna.

Location	Rentals (INR per sq. ft per month)
CBD	60-65
Boring Road	55-60
Kankarbagh	50-55
Rajendra Nagar	45-50
Danapur	40-45

Demand Drivers

IT/ITeS and BFSI sectors remain the foremost demand drivers for office real estate in Bihar. Major IT/ITeS companies with development centers in Patna include TCS, L&T Infotech, Mindtree, Tech Mahindra, and Capgemini among others. Top BFSI players like ICICI, HDFC, Axis have setup their regional offices. Other sectors like healthcare, manufacturing, education also account for some office demand.

The state government has developed specific IT parks and zones to cater to office demand like IT City near Danapur and nursery IT park. Benefits like subsidized land rates, tax incentives, single window clearance etc. offered in these parks help attract IT/ITeS companies. Connectivity via highways and availability of residential areas are also important criteria for office demand drivers.

Vacancy and Absorption

Table 3 provides a snapshot of office space vacancy levels and absorption trends in Patna and Bihar. Vacancy rate indicates the proportion of unleased space in completed projects. Vacancy rates have remained moderate in the 10-15% range indicating steady uptake of supply. Absorption indicates the actual area leased by corporates each year. Absorption has grown steadily with 0.4-0.6 million sq. ft of space getting leased annually.

Healthy pre-leasing and rising absorption highlight the growing demand for office real estate. IT/ITeS and BFSI sectors account for majority of the absorption. The demand-supply dynamics have kept vacancy in control and facilitated rental growth.

Table 3:- Office Vacancy and Absorption Trends.

Year	Vacancy (%)	Annual Absorption (million sq. ft)
2015	13%	0.4
2016	11%	0.5
2017	15%	0.6
2018	12%	0.5

Source: Cushman & Wakefield Research

Outlook

The outlook for the office market in Bihar remains positive supported by factors like rapid urbanization, skilled talent availability, proactive government incentives, and growth of services sectors. We expect annual supply addition to maintain 1-1.5 million sq. ft as developer interest remains upbeat. Rentals are forecasted to grow 6-8% annually over the next few years.

Absorption is projected to touch 0.8-1 million sq. ft per year driven by demand from IT/ITeS, BFSI, and e-commerce firms. The state government's push towards promoting Patna as an IT destination and attracting investments should further accelerate office space demand. If infrastructure and talent challenges are addressed, Patna has the potential to emerge as a key B-Grade office location in the country.

Retail Market

In this section, we analyze the retail market focusing on shopping malls which are drivers of organized retail penetration in urban centers.

Mall Supply Analysis

The first modern mall in Bihar - P&M Mall commenced operations in Patna in 2011 heralding the advent of organized retail. Since then, the number of malls has gradually grown to around 20 as of 2018 comprising 3.5 million sq. ft of retail space [8].

Figure 3 shows the mall supply progression in Patna and Bihar over the years. Avg. size of malls ranges from 100,000 - 250,000 sq. ft catering to catchments of 8-10 km. Nearly 70% of mall stock is concentrated in Patna with the remaining spread across cities like Muzaffarpur, Bhagalpur, Darbhanga, and Gaya. Mall development has gained momentum since 2016 with around 6 new malls adding 1.5 million sq. ft of retail space.

Annual Office Supply (million sq. ft) vs. Year

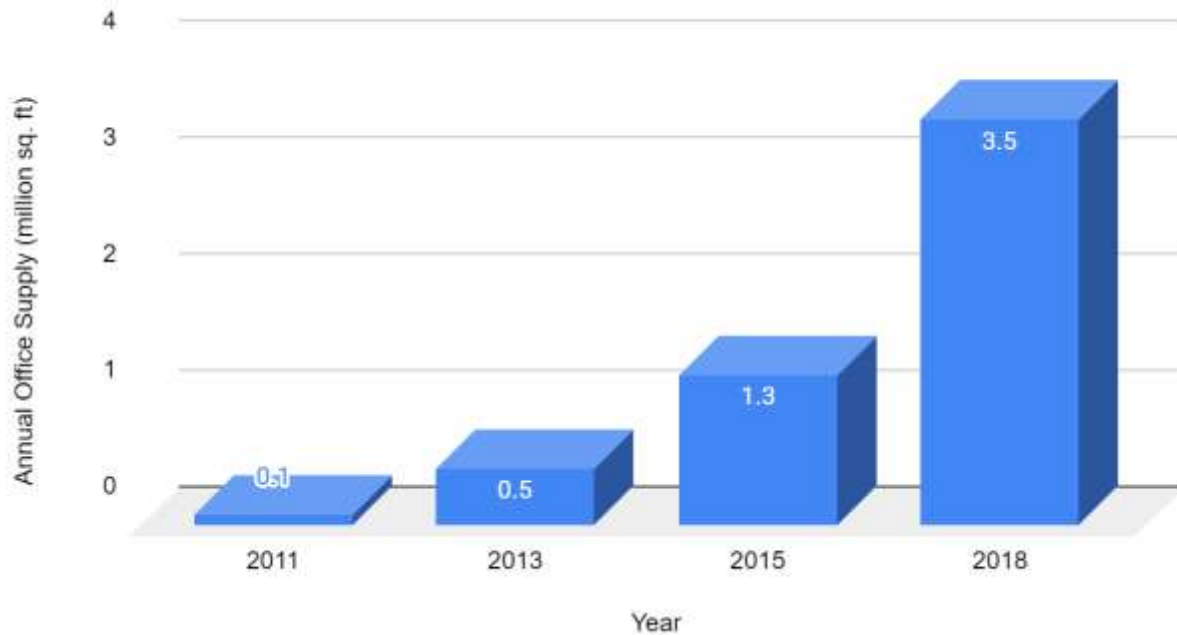


Figure 3:- Organized Retail Mall Stock.

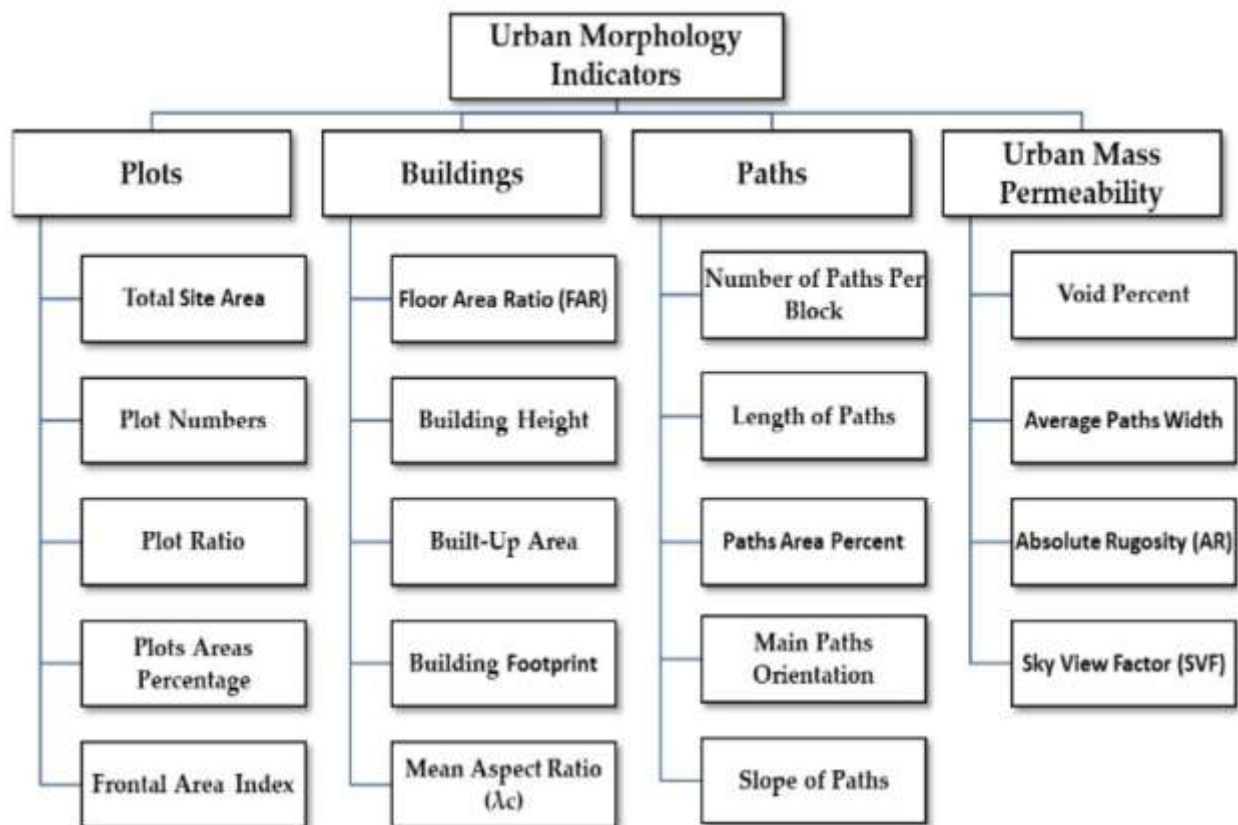


Figure 4:- Urban morphology [20].

Rental Trends

Rentals are a critical factor determining retailer interest and viability of malls. Table 4.2.1 highlights the average rental range for ground floor and first floor in organized retail malls across Patna. Rentals vary from INR 60-100 per sq. ft. depending on the mall positioning, location, and footfalls. First floor commands 10-15% premium over ground floor due to higher visibility. Rentals have been growing steadily by 3-5% annually as new malls enter the market.

Table 4.2.1:- Retail Mall Rentals in Patna.

Type	Rentals (INR per sq. ft per month)
Ground Floor	80-100
First Floor	90-110

Retailer Profile

Mall occupancy is driven by prominent national retailers who have setup stores in Patna over the past decade. Table 4 provides a snapshot of major retailers across key categories operational in the city. Categories like apparel, footwear, beauty & wellness are well represented while more F&B, entertainment, and electronics retailers are expected to enter in future.

Table 4:- Key Organized Retailers in Patna.

Category	Key Retailers
Apparel	Pantaloons, Shoppers Stop, Max, Westside, Globus
Footwear	Bata, Metro Shoes, Mochi
Beauty & Wellness	Lakme Salon, Groom India Salon, VLCC
F&B	KFC, McDonald's, Domino's
Electronics	Croma, Vijay Sales
Department Stores	Big Bazaar, More Hypermarket

Source: Mall Operator Websites

Vacancy and Consumption

Backed by retailer demand, mall vacancy rates have been low in the 5-10% range across Patna indicating high occupancy levels (Table 5). Avg. monthly footfalls range from 18,000 - 25,000 per mall with annual consumption spending of INR 2000-3500 per sq. ft. Steady footfalls and consumption have attracted more brands and resulted in healthy absorption of mall space.

Table 5:- Key Retail Mall Metrics in Patna.

Metric	Indicative Range
Vacancy Rate	5-10%
Monthly Footfalls	18,000 - 25,000
Annual Consumption per sq. ft	INR 2000-3500

Source: Mall Operator Data

Higher spending power among middle class consumers in Patna relative to other similarly sized cities is a key factor driving retail consumption.

Outlook

The organized retail market is still in early stages with low current penetration of shopping malls. However, rising middle class incomes, urbanization, nuclearization of families, and exposure to brands bodes well for future growth. We expect supply addition to continue at 0.3-0.5 million sq. ft annually over the next few years as more retailers turn attention to underserved markets like Patna.

Absorption is projected to pick up further owing to higher demand. About 8-10 new national brands are expected to setup stores every year in Patna, facilitating healthy occupancy levels in upcoming malls. While rentals are forecast to increase 3-5% per annum, some rationalization is likely in future with higher supply induction. Overall, the fledgling organized retail market offers significant potential for growth in years to come.

Growth Drivers

Multiple factors are contributing to the growth of commercial real estate in Bihar:



5.1 Economic Growth

With a GSDP of INR 5.9 trillion (\$85 billion) and per capita income exceeding \$750, Bihar is one of the fastest growing states in India [9]. It has maintained an average growth rate above 10% in the last decade. Rising incomes and domestic consumption are driving demand for commercial real estate.



5.2 Urbanization

Urban population of Bihar has grown from 11% to 12% between 2011 and 2018 [10]. Rapid urbanization is resulting in job creation and need for more office spaces, malls, hospitals etc.



5.3 For Government:

Continue focus on infrastructure projects like Metro rail, roads, power transmission etc.



5.4 IT/ITeS Growth

Bihar has emerged as an attractive IT/ITeS destination given its large talent pool and affordable real estate. Several companies have setup centers in Patna and demand for office space is rising rapidly. The state government has announced favorable policies like subsidized land in IT parks, training subsidies, and tax incentives for the IT/ITeS industry.



5.5 Institutional Investments

Large institutional investors like Blackstone, Ascendas, and Everstone have started deploying capital in commercial projects across Bihar. Their investments provide a major boost to developer confidence and credibility of projects. Institutional investments are expected to rise further given the high development potential.



5.6 Infrastructure Development

Significant investments are being made in infrastructure projects like highways, bridges, power transmission, Metro rail, inland ports etc. across Bihar in recent years. Improving connectivity and infrastructure is enhancing the viability of commercial real estate projects.



5.7 Retail Market Growth

With rising incomes and urbanization, domestic consumption and organized retail are witnessing high growth. Retail chains are looking to expand in untapped markets like Bihar which will drive demand for shopping malls.



5.8 Strong Demographics

At 103 million, Bihar has the second highest population among Indian states. About 58% of the population is under 25 years of age. The large working age population provides a massive talent pool and consumer base to sustain economic expansion and commercial real estate demand.

Key Challenges

While the growth potential is immense, multiple challenges need to be addressed to facilitate healthier development of commercial real estate in Bihar:



The challenges facing infrastructure development in Bihar are multifaceted. Despite some progress, issues such as unreliable power and water supply, inadequate transportation links to industrial areas, and limited public transport access to commercial centers persist, hindering project viability. Additionally, a shortage of skilled talent in sectors like IT/ITeS and financial services impedes expansion efforts. Complex land acquisition processes further exacerbate delays and escalate costs for developers. High interest rates and stringent lending criteria imposed by financial institutions restrict access to affordable construction finance. Moreover, cities like Patna struggle with a weak brand perception among businesses and retailers, compounded by limited social infrastructure. Navigating bureaucratic hurdles and regulatory compliance adds another layer of challenge, necessitating reforms to encourage private sector involvement. Overall, addressing these issues through targeted interventions is crucial to fostering sustainable development in Bihar.

Outlook and Forecast

We expect commercial real estate in Bihar to witness steady growth in the coming years driven by rising demand and policy support. Some key projections for the future outlook:

Supply Projections

1. Office supply in Patna to reach 10 million sq. ft by 2025 at a CAGR of 10-12%
2. Total mall stock across Bihar to grow to 6 million sq. ft by 2025, adding 0.4-0.5 million sq. ft annually
3. Hospitality and industrial supply to witness gradual growth reaching 5 million sq. ft and 7 million sq. ft respectively by 2025

Rental and Capital Value Outlook

1. Office rentals in Patna to grow at 5-8% per annum reaching INR 65-75 per sq. ft by 2025
2. Mall rentals to appreciate by 3-5% annually and surpass INR 125 per sq. ft by 2025
3. Capital values across commercial asset classes expected to grow at 6-9% CAGR over the next 5 years

Demand and Absorption Projections

1. Office absorption in Patna to consistently remain above 0.8 million sq. ft per annum till 2025
2. Organized retail penetration to reach 25% by 2025 from 15% currently
3. Hospitality occupancy expected to cross 65% by 2025 from 50% now

Market Maturity

1. Patna's office stock to cross 20 million sq. ft by 2030, elevating it to a Grade A commercial destination
2. Share of institutional investments to reach 30% by 2025 from 10% currently
3. Cities like Muzaffarpur, Bhagalpur, and Gaya also offer strong growth potential in the long term

Discussion:-

The study of commercial real estate in Bihar presents several intriguing realities. Office spaces and retail malls have witnessed encouraging growth trends with respect to supply, absorption and rentals but nagging challenges exist.

Compared to pan-India, Bihar's total stock is still quite low at 13 million sq.ft. Vacancy rates though remain on par indicating demand-supply equilibrium. Absorption metrics are also steadily improving. Government initiatives like the IT City park have provided some impetus but the actual outcome is below potential as only 42% of occupied stock comprises IT/ITeS tenants. Reasons could include infrastructure limitations in parks and lack of wider ancillary facilities.

The consumer markets seem more promising as Patna sees monthly retail consumption levels that surpass similar Tier-2 cities. Affordability, rising incomes and availability of brands seem supportive. Yet high streets and neighborhood stores still dominate retail possibly due to infrastructure access issues to large malls located further from city centers. Also growth outside Patna seems muted as satellite towns await more organized development. Financially, rising rentals and stable vacancies for both office and retail indicate investor confidence. However, absorption and consumption data reveals most projects remain in Patna. Developers still perceive significant risk in exploring untested markets beyond state capital. Addressing wider infrastructure deficiencies can improve invest ability. Interactions with occupiers like IT firms and retailers reveal persistent constraints around power reliability, public transport access and safety. Yet timelines for large public infrastructure projects remain fluid creating uncertain business environment. Some developers too flagged procedural delays and funding constraints as key impediments.

Despite the challenges, Bihar offers strong demographics, consumption led growth impetus, low rentals and high investment potential. The state's commitment to reforms across governance, infrastructure, education and social parameters remains steady. Thus the question remains whether strong top-down policy actions can catalyze bottom-up activity at the project execution level to transform potential into tangible outcomes. Impact on ground will be key to monitor to assess if raising economic expansion and real estate development remain sustainable.

Conclusion and Recommendations:-

In summary, this study indicates that Bihar exhibits strong fundamentals and growth prospects in commercial real estate driven by rising demand and enabling policies. However, significant work remains to be done on infrastructure upgradation, easing approvals, facilitating project finance, talent development and perception change for the sector to realize its immense potential.

Based on the analysis, we propose the following recommendations:

For Government:

1. Continue focus on infrastructure projects like Metro rail, roads, power transmission etc.
2. Develop integrated townships and commercial zones with provision of amenities and public transport connectivity
3. Streamline land acquisition and approval processes through digitization and process re-engineering
4. Offer incentives for private investments like reduced stamp duties, off-site infrastructure provision etc.
5. Invest in skill development programs to create industry-ready talent pool

For Developers:

1. Adopt advanced construction techniques like precast and modular construction to improve execution capabilities
2. Maintain high standards of corporate governance and construction quality
3. Tap capital markets and institutional capital via REITs, fund partnerships etc. to reduce dependence on debt
4. Partner with international architects and consultants to absorb best practices

For Occupiers:

1. Work closely with the government and share sector-specific infrastructure and policy requirements
2. Support development of local talent by providing internships and training opportunities
3. Adopt sustainable design practices to reduce carbon footprint and resource consumption

The study provides a rich baseline of the commercial real estate landscape in Bihar from which policymakers and industry stakeholders can chart out the future growth path. While challenges remain, the future outlook is positive driven by an enabling environment. Sustained efforts to further improve infrastructure, streamline regulations, attract private investment and develop local talent can help unlock the full potential of commercial real estate in Bihar.

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