CHAPTER 65

Examining the Land Value Increment Trend along Metro Transit Corridors in Pune

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ABSTRACT

The Thesis aims to explore the Transit-Oriented Development in Pune along metro corridors. The Primary aim is to gain a comprehensive understanding of TOD principles around metro transit corridors and analysis the how transit-oriented Development effecting the different land use (Residential, Commercial, Health care, Recreational, etc.) in the terms of prices. Through comparative analysis, this research aims to find common trends, best practices, and challenges met in the TOD implementation process across the Pune city. Additionally, the study will assess the impact of TOD on factors such as urban mobility, land use efficiency, environmental sustainability, and social equity. This study gives an understanding about real estate sector of the city how it changes in land prices in TOD Zone and trends of the property prices changes in a period of Time so that we can understand that TOD is influencing the Land-uses. The findings of this research are expected to contribute to the existing body of knowledge on TOD and inform policymakers, urban planners, and practitioners about strategies for promoting sustainable and livable cities through transit-oriented development. By synthesizing lessons learned from diverse urban contexts, this thesis aims to help informed decision-making and support the development of more effective TOD policies and practices in India and beyond.

Keywords: Transit oriented development; Land-use; Land value; MRTS; Comparative analysis.

1.0 Introduction

Transit-oriented development (TOD) represents a pivotal strategy globally aimed at promoting urban and transportation sustainability. A vital challenge to the effectiveness of TOD is the spatial discordance between urban transit and land development (Cong *et al.*, 2024). Faced with the urban sprawl and the increasingly serious urban traffic problems caused by the sustained and rapid economic growth and fast development of urbanization, advocating the development of metro-led cities and intensive and compact development to form a green, transportation-oriented built environment has become a national strategic need (Chen, 2023).

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The Study focus on the effects of Mass Rapid Transit (MRT) systems in metropolitan cities, looking at both existing studies and new areas for future research. The primary goals are to examine the evolving publication scene, identify prominent individuals and entities, analyse keyword networks, and understand current research subjects. The study aims to provide a complete understanding of the effects of MRT systems to guide future research and inform urban planning decisions (Ranjan & Mandal, 2024).

TOD planning in India is necessary to address neighbourhood structure and transportation challenges in metropolitan areas. Transit-oriented development is a concept with different definitions, although it refers to high-density development through transit interaction. This method aims to decongest city nodes, arteries, with public transport to encourage people to walk or use non-motorized transport for significant travel (Dalwadi, 2022). This study aims to understand the Transit Oriented Development functions in different perspectives and public mode of transportation usage. Comparative analysis of TOD in different areas of the city and identifying common issues in that city. As part of this doing land value capture analysis and comparative analysis of different land uses at zones of that area. In this study it focuses on the comparative analysis of Transit Oriented Development of different areas of the city.

In this the Transit oriented development focus in the city but in different areas & different perspectives like Existing metro line surroundings and Proposed Metro line surroundings in different objectives like land value capturing, trend analysis, Analysis the situation of the study area etc.

1.1 Research questions

RQ: How the Transit Oriented Development in Pune city is influencing the functions of land and property development in different Areas?

1.2 Research objectives

The following research objectives are listed below:

RO1: To Identify the key issues that the cities are facing due to implementation of Transit system, Specifically Metro.

RO2: To assess how Transit Oriented Development (TOD) is influencing the land Prices in the Pune city.

RO3: To map the trends of land values of different land uses due to TOD over a time period in Pune city.

RO4: To perform a comparative analysis of land values of different land uses due to TOD over a Time

1.3 Study area

India's real estate market is undergoing a remarkable transformation, reflecting changing aspirations and evolving spending behaviours that signal a pivotal shift for the sector.

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While the luxury housing segment has gained prominence in recent years, there is an increasing tilt toward practical and mid-segment housing options, indicating a redefinition of buyer priorities. (Pai, 2024)

Maharashtra was the one of the states with having highest Property prices across the India due to rapid infrastructure development, population growth, Employment opportunities, etc. In Maharashtra Mumbai is the capital city and financial capital city so after this Pune is only city with has bit similar features with has good infrastructure development, network connectivity, and educational hub where students come from other cities, states and countries. At the same time there is lot of traffic congestion in Pune due to Infrastructure development, migration of people for better employment, and due to tourism attraction of the city.

The Pune District administration has intensified efforts to finalize land acquisition for the Pune Ring Road project; a critical infrastructure initiative aimed at reducing the city's traffic congestion. Of the total 1,740 hectares required, 1,300 hectares have already been acquired, leaving 200 hectares to be completed. (Pune News- Report)

So, we have selected Pune as study area and here we are concentrating on Metro routes of the city in different parameters like

- Metro connectivity should be available.
- Comparation between Proposed Metro Line and Existing metro line.
- Property Rates of the area should be available for last 10Years.
- Passenger Data of metro line in selected area.

So, we have selected 2 Study Areas they are:

Table 1: Study Area Details

District	Taluka	Village	Metro Strech	Metro line distance	Metro Type	Land Uses
Pune	Haveli	Kothrud	Vanaz to Ideal Colony	2 Kms	Elevated	Open Land, Residential Flat, Office, Shop, Industries
Pune	Haveli	Balewadi, Baner	Ram Nagar – Baner Gaow	3.3Kms	Elevated	Open Land, Residential Flat, Office, Shop, Industries

Source: Google Earth

2.0 Literature Review

2.1 Introduction

The Literature Review aims to analyse existing research on TOD, particularly in the context of Indian Metropolitan areas. The main theme was transit-oriented development

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impacting the land values around the TOD zone which was not comparable with the other areas of that city. It shows the effect on different land uses in that city. The relationship between metro system and land value appreciation has been a focus point in study. Transit accessibility often leads to increase property prices its surrounding areas.

2.2 Scopus search

The Scopus research database is used to find papers for literature review. ((“transit-oriented development”) AND (“cities”) AND (“Property Rates”) search string was used, which identified 747 papers from multidisciplinary fields of study. Out of them abstracts of 60 research papers were studied and analysis was drawn.

2.3 Theming

Based on the analysis drawn the papers were themed into 8 categories which are:

Table 2: Themes Identified from Papers

S. No	Title	Author	Summary
Case Studies and Comparative Analysis			
1	From city center to suburbs: Developing a timeline-based TOD assessment model to explore the dynamic changes in station areas of Tokyo metropolitan area	Yang W.; Yan W.; Chen L.; Li H.	The study develops a quantitative model to assess the sustainability of Transit-Oriented Development (TOD) station areas over time, using node-place-carbon dimensions and K-means cluster analysis, revealing a trend towards sustainability with some deviations and increased centralization in Tokyo’s station areas.
2	Spatial Relationships between Population, Employment Density, and Urban Metro Stations: A Case Study of Tianjin City, China	Lai Y.; Zhou J.; Xu X.	The study uses mobile phone data and spatial analysis methods to evaluate the impact of metro stations on population and employment densities in Tianjin, China, finding significant concentration around stations and identifying key factors influencing these patterns to support sustainable urban development.
3	Determination of Oriented Transit Development at Light Rail Transit Stations by the Process Hierarchy Analysis	Widyaningsih N.S.H.; Wan Mohtar W.H.M.; Muhammad I.R.	The study uses Analytic Hierarchy Process (AHP) to evaluate and select the Pasar 16 Ilir area in Palembang as the most suitable location for implementing Transit Oriented Development (TOD) among several options.
4	Built Environment Renewal Strategies Aimed at Improving Metro Station Vitality via the Interpretable Machine Learning Method: A Case Study of Beijing	Wang Z.; Li S.; Zhang Y.; Wang X.; Liu S.; Liu D.	The study uses extreme Gradient Boosting (XGBoost) and various pedestrian catchment area (PCA) combinations to assess the impact of the built environment on metro ridership in Beijing, identifying optimal PCA sizes and renewal priorities for metro stations.
5	Nonlinear effects of public transport accessibility on urban development: A case study of	Gao L.; Chong H.-Y.; Zhang W.; Li Z.	The study uses gradient-boosting decision tree (GBDT) analysis to examine the nonlinear relationship between public transport accessibility and urban development in the

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	mountainous city		mountainous city of Chongqing, China, highlighting the impact of metro and street accessibility.
Equity and Inclusivity in Urban Development			
6	Reflections on TOD in China: From land finance to inclusive growth	Su Y.; Wu Y.; Choguill C.L.; Luo J.; Yu X.	The paper evaluates the implementation of transit-oriented development (TOD) in China, using Hangzhou as a case study, and advocates for inclusive growth models that integrate TOD with affordable housing to address housing affordability and promote balanced urban development. This method involves analysing the impact of current land finance models and proposing new approaches for equitable urban growth.
7	Evaluating the level of access and equity of the bus rapid transit (BRT) system: The case of Dar-Es-Salaam, Tanzania	Mwesigwa L.; Yin Z.; Farber S.	The study evaluates the equity of Dar-es-Salaam's Bus Rapid Transit (BRT) system, finding that its benefits disproportionately Favor wealthier populations and suggesting improvements for better access for poorer communities. They used infrastructure-based measures of proximity to transit stations and stops to assess transit access and coverage relative to socio-economic strata.
8	Creating inequality in access to public transit? Densification, gentrification, and displacement	Lutz E.; Wicki M.; Kaufmann D.	The paper uses linked person-housing unit data to analyse the impact of densification around train stations in Zurich on socioeconomic population composition, revealing that while densification increases low-income residents in absolute terms, it primarily benefits higher-income households and increases displacement risks for low-income residents.
9	Towards an equity-centred model of sustainable mobility: Integrating inequality and segregation challenges in the green mobility transition	Tammaru T.; Sevtsuk A.; Witlox F.	The Special Issue presents an Equitable Sustainable Mobility Model, integrating non-auto accessibility with daily activity destinations, and addresses urban structure, segregation, and mobility to promote greener, more equitable urban mobility solutions.
Integrated Land Use and Transportation Planning			
10	Land Change Pattern in High-Speed Rail Station Area: Empirical Research on Yangtze River Delta Region in China from 2010 to 2020	Wang X.; Pan H.	The study uses statistical analysis of land cover scale and compactness indices to evaluate how high-speed rail (HSR) stations in the Yangtze River Delta have influenced land cover changes and urban development patterns over a 10-year period.
11	Analyzing the effect size of urban growth driving factors: application of multilayer-perceptron Markov-chain model for the Riyadh city	Al-Shaar W.	The study uses a Multi-Layer Perceptron Markov Chain model to predict urban growth in Riyadh for 2030 and 2050, focusing on the impact of road networks, railways, and other driving factors on future urban expansion.
Spatial Dynamics and Transportation Integration			
12	Integrating spatial vitality and node-place model to evaluate and classify metro station areas in Wuhan	Wu T.; Li M.; Gao L.; Zhou Y.	The paper introduces the node-place-vitality (NPV) model, incorporating vitality as a third dimension into the node-place model for Transit-Oriented Development (TOD), and uses it with K-means++ clustering in a case study of

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			Wuhan, China, to re-evaluate TOD performance and spatial patterns.
13	Exploring Nelspruit as a Historical Spatial Jigsaw Corridor-Based Secondary City: A Spatial Governance Geographical Perspective	Chakwizira J.	The paper uses Transit-Oriented Development (TOD) theory to analyse and propose improvements for Nelspruit's urban development, focusing on integrating land use and transport systems to address inefficiency and enhance growth.
Sustainability and Environmental Considerations			
14	Smart urbanism, citizen-centric approaches and integrated environmental services in transit-oriented development in Jakarta, Indonesia	Suryawan I.W.K.; Mulyana R.; Yenis Septiariva I.; Prayogo W.; Suhardono S.; Sari M.M.; Ulhasanah N.	The paper introduces the node-place-vitality (NPV) model, incorporating vitality as a third dimension into the node-place model for Transit-Oriented Development (TOD), and uses it with K-means++ clustering in a case study of Wuhan, China, to re-evaluate TOD performance and spatial patterns.
15	Sustainable Low-Carbon Layout of Land around Rail Transit Stations Based on Multi-Modal Spatial Data	Liu W.; Zhang J.; Jin L.; Dong J.; Alfarraj O.; Tolba A.; Wang Q.; He Y.	The paper uses a "bottom-up" theoretical calculation method to model and analyze carbon emissions from transport, focusing on the distribution of land use around rail transit stations to propose strategies for reducing emissions.
16	Strategic planning for a sustainable local-regional transit-oriented development	Björling N.; Capitao Patrao C.	The paper discusses using strategic local-regional planning and mutual learning between local and regional actors to address uneven development and optimize regional investments in the context of Transit-Oriented Development (TOD) in Sweden.
Transit Oriented Development (TOD) Performance and Impact			
17	Macro level performance study of Ahmadabad bus rapid transit system: Janmarg	Pathak S.; Upadhyay R.K.	The research evaluates the factors limiting the ridership and growth of Janmarg, India's longest BRTS, and recommends strategies for optimizing its effectiveness using a combination of primary and secondary research methods.
18	Role of Transit-Oriented Development (TOD) in Making Healthy Cities—Case Delhi	Patill V.; Singh K.	The paper evaluates Delhi's Transit-Oriented Development (TOD) policy, integrated into the Master Plan for Delhi 2021, which aims to address urban challenges through mixed-use, pedestrian-friendly transit zones to improve liveability, sustainability, and environmental quality. The study analyses policy impacts and benefits on urban planning and quality of life.
19	Accessibility and Land Use Effect of Residential Area with Different TOD Typology to Value Creation	Arliani V.; Sjafruddin A.; Santoso I.; Winarso H.	The paper evaluates the impact of Transit-Oriented Development (TOD) on value creation by analysing accessibility and land use factors in different areas of Jakarta using AHP to compute TOD indices and correlating them with land and building prices, providing insights for targeted urban planning.

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20	The equity implications of TOD in Curitiba	Turbay A.L.B.; Pereira R.H.M.; Firmino R.	The paper analyses the socioeconomic and spatial impacts of Curitiba's Bus Rapid Transit (BRT) system on access to economic activities and public services, highlighting how TOD can exacerbate inequalities and affect low-income communities.
21	Equitable TOD (eTOD): Current Thinking and Solutions for the Future	Davis M.M.	The article reviews current literature on Transit Oriented Development (TOD) and equitable TOD (eTOD) methodologies, focusing on balancing the benefits of TOD with strategies to mitigate displacement and segregation of vulnerable urban residents.
Urban Expansion and Property Prices			
22	The Effect of Salt Marsh on Residential Property Values	Gardner, G.	This study uses a hedonic property price method to evaluate the effects of salt marshes on residential property values in the Eastern Shore of Virginia. Contrary to findings from wetland literature, results show an insignificant relationship between proximity to salt marsh and residential property values.
Commercial Real Estate Trends in CBDs			
23	Understanding green building energy performance in the context of commercial estates: A multi-year and cross-region analysis using the Australian commercial building disclosure database	Gui, X., Gou, Z.	To understand the relationship between green building energy performance and regional commercial estates, this study analysed Australia's Commercial Building Disclosure (CBD) program database.
24	Dynamics of the intra-urban hierarchy in Istanbul's metropolitan area	Kok, H.	Forecasted demographic growth and the massive urban development task, the commercial real estate market in Istanbul is likely to be among the most dynamic ones in Europe

Source: Scopus

- *Case studies and comparative analysis:* Examining urban development projects across different contexts to identify best practices and lessons learned.
- *Equity and inclusivity in urban development:* Assessing how urban policies and projects promote fair access to housing, mobility, and public spaces for all social groups.
- *Integrated land use and transportation planning:* Exploring strategies that align land use patterns with efficient transportation systems to enhance accessibility and reduce congestion.
- *Spatial dynamics and transportation integration:* Analysing how urban spatial structures influence travel behaviour and infrastructure development.
- *Sustainability and environmental considerations:* Evaluating the environmental impact of urban growth and planning strategies for sustainable development.

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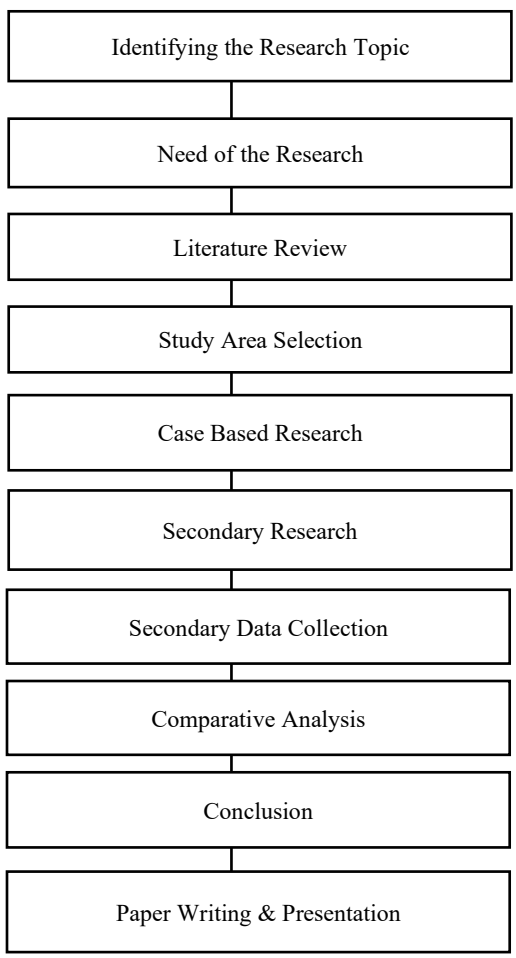
- *Transit Oriented Development (TOD) performance and impact:* Measuring the effectiveness of TOD initiatives in improving urban mobility, reducing car dependency, and fostering economic growth.
- *Urban expansion and property prices:* Investigating the relationship between urban sprawl, land availability, and fluctuations in real estate values.
- *Commercial real estate trends in CBDs:* Tracking market dynamics, demand shifts, and policy influences on commercial property development in central business districts.

3.0 Research Methodology

Figure 1: Research Methodology Structure



Source: Compiled by authors

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- *Identifying the research topic:* The research begins with selecting a relevant topic based on existing gaps, contemporary issues, and academic or practical significance. A well-defined topic ensures focused study and meaningful outcomes.
- *Need of the research:* Establishing the necessity of the research involves identifying the problem statement, its implications, and how the study contributes to academic knowledge, policy-making, or practical applications.
- *Literature review:* A thorough review of existing studies, theories, and research papers helps in understanding the subject, identifying gaps, and forming the conceptual framework for the study.
- *Study area Selection:* The study area is chosen based on its relevance to the research objectives, availability of data, and suitability for analysis. It ensures that the findings can be generalized or applied effectively.
- *Case based research:* Case studies are examined to understand real-world applications, best practices, and challenges. This approach helps in drawing comparative insights and supporting theoretical discussions.
- *Secondary research:* The study relies on existing literature, reports, and databases to build a strong foundation. It provides background information and supports primary research, if applicable.
- *Secondary data collection:* Relevant data is gathered from government reports, research articles, surveys, and statistical sources to analyse trends, patterns, and relationships within the study area.
- *Comparative analysis:* systematic comparison of different case studies, datasets, or policy approaches is conducted to identify similarities, differences, and best practices that inform the research findings.
- *Conclusion:* Key findings are summarized, highlighting their implications and contributions to the field. Recommendations may be provided based on the study's outcomes.
- *Paper writing & presentation:* The final research paper is structured, formatted, and refined to meet academic standards. The findings are then presented effectively for academic or professional dissemination.

4.0 Data Analysis

4.1 Transportation

4.1.1 Introduction

India stands as the most populous country globally. It is experiencing rapid urbanization as people increasingly migrate to major cities like Bengaluru, Mumbai, Delhi, and Kolkata in search of better educational and employment opportunities. This migration is gradually expanding urban areas and increasing the demand for efficient infrastructure. According to SBI

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Research, India's urban population, which was 31.1% of the total population in the 2011 Census, is expected to reach 35-37% by the 2024 Census. (Reporter, 2025) As of 2020, transportation in India contributed 14% of the country's energy-related direct carbon dioxide emissions, and 90% of this came from road transport. Decarbonizing the transport sector is a crucial goal for the country. As India strives to achieve its climate and environmental objectives, it's critical to have clear targets and defined intermediate milestones to help ensure that the pace of transition to clean transportation is in line with national goals. (Kohli, 2024)

4.1.2 Transportation in Pune

Pune is a rapidly developing city with an ambitious plan to improve sustainable mobility for its people. For years, the city has embraced radical approaches and initiatives that prioritise efficient and sustainable forms of transport. Pune has made several path-breaking interventions to develop walking, cycling, and public transport facilities across the city. (Mohol, 2021) The district is well connected with the state capital and surrounding district headquarters through road and rail linkages. The road network consists of Express Highways, National Highways, State Highways and Major District Roads. The rail network consists of both broad gauge (Electrified and Non-Electrified) double track as well as single track lines. The district headquarters has connectivity through airways for transport and trade to major airports within the country and to select international destinations.

In spite of the availability of perennial river stretches, there is no significant utilization of waterways in the district. (Government of Maharashtra, 2025) The district has a total length of 13,642 km of roads (2001) of which 5394 km roads are Bituminous surface, 3554 km roads of water bound macadam surface and 4694 km of other surface roads i.e. unmetalled road. The roads are classified according to their importance. Of the total road length in the district, 331km road length is covered by National Highways and 1368 km by State Highways. The major and other district roads have a total length of 5388 km, which passes through all the talukas. Almost all the villages are well connected by water bound macadam road. The total length of village roads is 6555 km. (Government of Maharashtra, 2025)

4.1.3 Role of metro in transportation

Metro rail transportation, also known as mass rapid transit (MRT), heavy rail, or metro, is a type of high-capacity public transport that is generally built in urban areas. It's a fully segregated rail-based mass transit system, which could be at grade, elevated, or underground. Due to its physical segregation and system technology, metro rail can have a very high capacity of 40,000 – 80,000 passengers per hour per direction. (Kavitha, 2023)

The success of the Delhi Metro highlighted the role of metro systems in improving urban connectivity and reducing traffic congestion in metropolitan cities. Its implementation inspired other cities to adopt metro systems as an efficient solution for addressing urban mobility challenges. Between 2011 and 2020, several cities introduced metro networks to

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enhance public transportation. Below is an overview of the metro systems established during this period. (Reporter, 2025) Metro is used to reduce the traffic congestion and increase the better transportation facilities to the public and reduce the road accidents. As we know India is a developing country Transportation sector is developing day by day. Will increasing the utilities, infrastructure development, employment facilities etc it makes more traffic congestion there is modification of transportation network.

As India promoting sustainable practices will coming to the transportation perspective promote the public transport and reduce the personal vehicles metro is the best example, but metro is Tier 1 cities like Delhi, Mumbai, Hyderabad, Bangalore etc.

4.1.4 Key issues in metro network in cities

Metro systems in cities face several key issues that impact their efficiency, sustainability, and effectiveness. There are Several Issues in Metro during construction and after running they are

- Over-estimation of Traffic Demand Forecasts/Ridership Estimation
- Land/Property Acquisition and Resettlement and Rehabilitation Related Issues
- Loss of Trees/ Green Cover
- Noise Pollution and Vibration Issues
- Accidents During Construction Phase
- Traffic Issues during Construction Phase

4.1.5 Metro condition in Pune city

Pune city is known in the world map because of its educational, research and development institutions, IT Parks and automobiles industry in western Maharashtra. In last decades, the city witnessed a rise in population and people migrating from a different part of the country for job opportunities. However, the sustainable infrastructure to facilitate easy commute to the citizens was missing. Average travel time for citizens using public transport in Pune is over ~100 mins a day. This makes more and more citizens use their personal vehicle, which causes traffic chaos and congestion issues. (Pune Metro Rail Project, n.d.) Here in, Pune Metro, will help tackle all these issues, provide comfortable and convenient commute in the city by significantly reducing the travel time by 75%. It will facilitate many youths, students, professionals, etc. traveling to their destination. (Pune Metro Rail Project, n.d.)

4.2 Property prices

4.2.1 Introduction

Real estate sector in India is expected to reach US$ 1 trillion in market size by 2030, up from US$ 200 billion in 2021. India's real estate market is estimated to increase at a CAGR of 19.5% during 2017- 2028. The market is forecast to reach US$ 650 billion, representing 13% of

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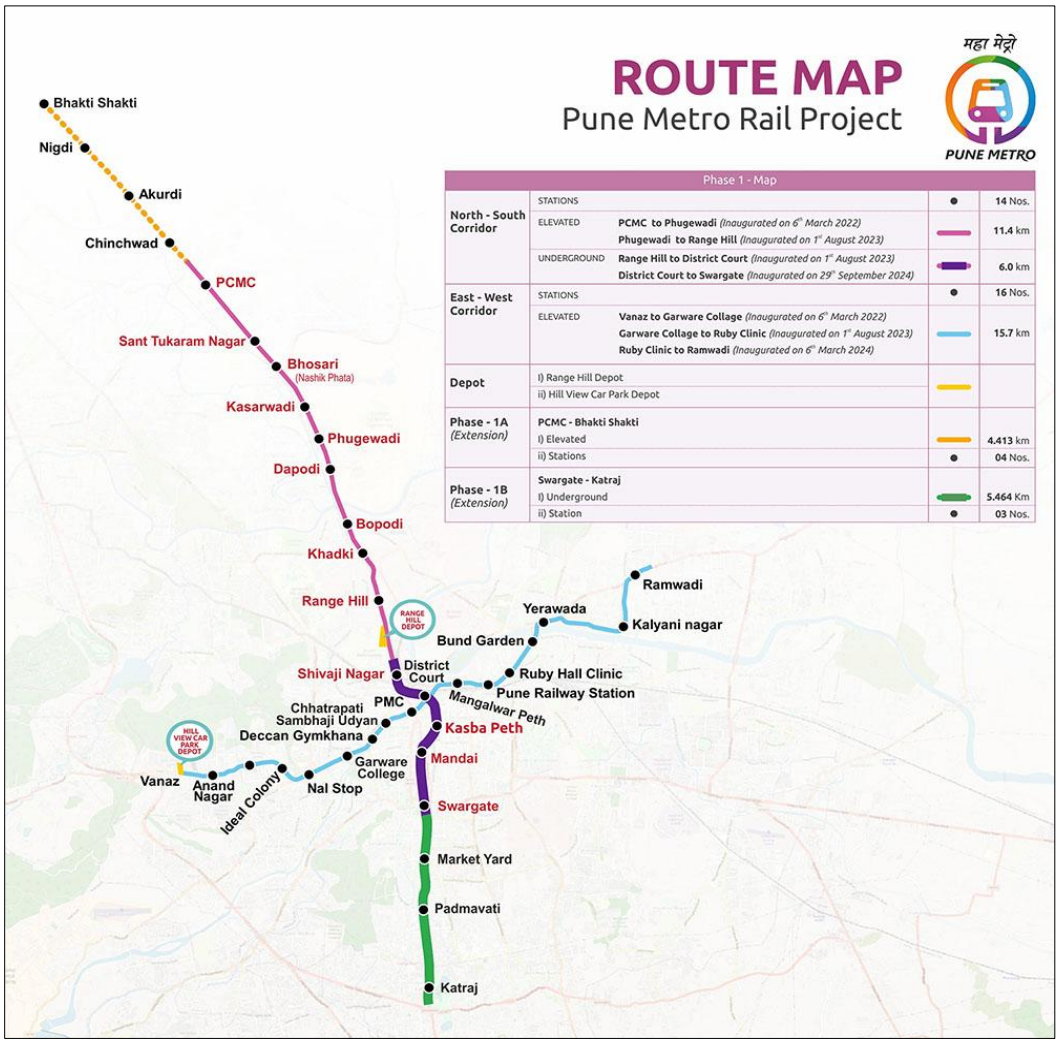
India's GDP by 2025. (India Brand Equity Foundation, 2024) Average home prices in India are set to rise steadily over the coming years driven mainly by demand from wealthy individuals, while the rising cost of living will make owning a property unattainable for most people, a Reuters poll found. (Trivedi & Mishra, 2024) While India's middle class tightens its belt, cutting back on everything from tea to two-wheelers due to soaring consumer inflation, the richest 1% who own 40% of the country's wealth are snapping up homes in cities with well-paying jobs. (Trivedi & Mishra, 2024)

Figure 2: Pune Metro Existing Route Map



Source: Pune Metro Rail Project

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4.2.2 Reason for increasing property prices

The Property prices were increases due to several reasons one of the major reasons is change of Land use in those areas, due to development of Infrastructure development, employment facilities etc. India home prices to rise 6.5% in 2025, driven by demand from wealthy. After rising 4.3% last year, home prices in India - broadly referring to housing in major cities - were expected to rise 7.0% this year, 6.5% in 2025 and 7.5% in 2026, median forecasts from the Nov. 12-29 survey of 12 property market experts showed. (Trivedi & Mishra, 2024)

4.2.3 Property prices in Pune

Pune is one of India's fastest-growing cities, with a thriving real estate market. The city has seen a surge in demand for both residential and commercial properties as the government focuses on improving infrastructure and the growth of various industries. Several factors influence the Pune real estate market, including government policies, construction rates, and property valuation. Pune has become a hotbed for property investment in recent years, with many people looking to buy homes in the city's prime locations. (Property, 2023) Pune's stamp duty and local body tax (3% stamp duty plus 1% local body tax) were also reduced, affecting Pune land prices further. Several real estate developers were willing to pay the GST on the buyer's behalf. This is regarded as one of the primary reasons for the 58% increase in sales. (Property, 2023)

Figure 3: Vanaz Metro Station

Source: Pune Metro Rail Project

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4.3 Relation between transportation and property prices

The relationship between transport accessibility and land value rises in connection with the concept of land value capture. A study looked at the relationship between transport accessibility and land value with the implication of a local model, geographically weighted regression (GWR). Traditional techniques, such as hedonic models, used to understand the attributes of land value, are global models that could be misleading in examining spatially varying relationships, such as transport accessibility and land value. (Hongbo & Corinne, 1977)

4.4 Metro network effecting the property prices in Pune

The Metro Project starts in December 2016 before Pune property price are growing in 5-15%. But after proposal of Metro the property prices were increasing rapidly than expected due increase of Infrastructure, Transportation facilities, Employment opportunities etc. While compared in our study area with existing and new line proposed metro line. The proposed metro line increases rapidly nearly 20-50% prices are increased within 10Years even the existing metro line surrounding areas are also increases but there is difference in change in property prices.

4.5 Study area analysis

4.5.1 Study Area1: Vanaz – ideal colony

Vanaz is a terminal station of Vanaz-Ramwadi corridor. To the north of Vanaz is a hilly area with a small residential enclave along Paud Rd.

The major residential area in the region is Kothrud, to the south of Vanaz metro station. To its east, beyond a hillock, is a township called Bavdhan. Connectivity has been established with surrounding areas via buses and autoroutes; wherever connectivity is poor, considerations are being made to deploy buses in those directions. (Pune Metro Rail Project, n.d.) The alignment from the ideal Colony Metro Station goes south-westward toward Anand Nagar, both of which are densely populated residential areas. Various studies point toward the growth of the city in this direction, all the way westward to Vanaz. (Pune Metro Rail Project, n.d.)

4.5.2 Study Area2: Ram Nagar – Baner Gaow

The Baner-Balewadi was a rural area that was transformed into a residential suburb and is now metamorphosing into a commercial and educational hub of Pune city. This area is now a part of Pune Municipal Corporation and is occupied by various schools, universities, and IT companies. The decadal population growth rate of the Baner-Balewadi area is 275%; it is much higher than the Pune districts and city's growth rate, which makes it a fascinating area for this study. A cross-sectional survey was conducted in this area covering three major regions: Balewadi Highstreet, Baner-Balewadi Road, and NICMAR University (Dhaarna, 2024).

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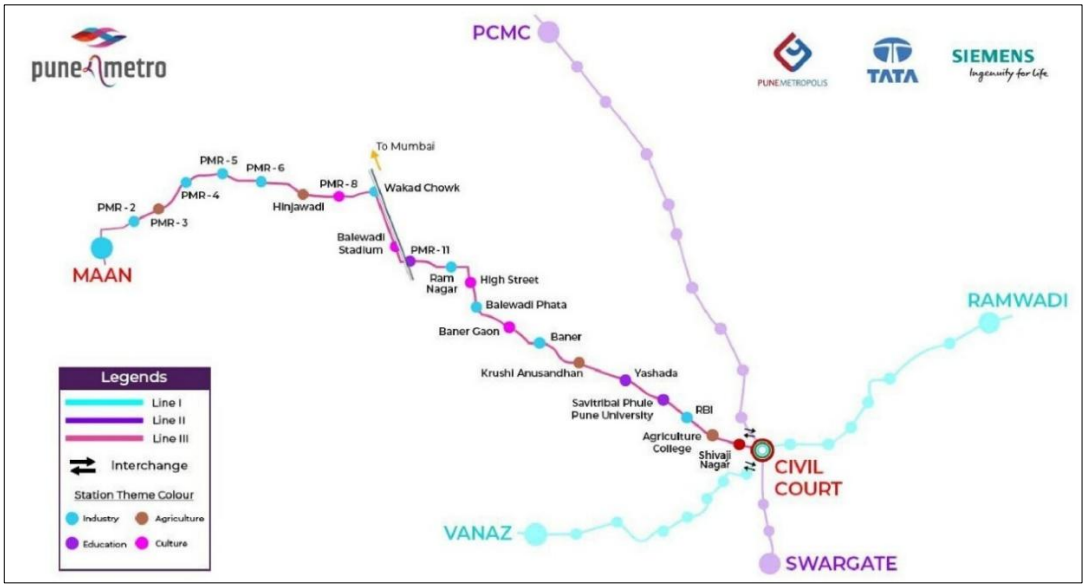
Figure 4: Proposed New Metro Line



Source: Puneri Metro

Table 3: Property Prices of the Study Area

Parameters	Vanaz – Ideal Colony	Ram Nagar – Baner Gaow (Balewadi)	Ram Nagar – Baner Gaow (Baner)
Taluka	Haveli	Haveli	Haveli
Village	Kothrud	Balewadi	Baner
Type of Metro	Elevated	Elevated	Elevated
Distance of the study area stretch	2KM	3.3Km	3.3Km
Open Land Price in 2015	30930	21580	15560
Open Land Price in 2024	37170	31430	28860
Change in Percentage	**20.17%**	**45.64%**	**85.47%**
Residential Plot Price in 2015	70170	61990	57120
Residential Plot Price in 2024	83980	77790	84630
Change in Percentage	**19.68%**	**25.48%**	**48.16%**
Shop Price in 2015	182130	76850	89370
Shop Price in 2024	199860	97230	117300
Change in Percentage	**9.73%**	**26.51%**	**31.25%**
Office Price in 2015	121970	66000	72530
Office Price in 2024	118780	89460	97330
Change in Percentage	**-2.61%**	**35.54%**	**34.19%**
Average Growth Rate	**48.92%**	**106.51%**	**173.42%**

Source: Annual Statement of Rates, Maharashtra

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The Baner – Balewadi has high potential growth in real – estate sector perspective because of change in land use, implementation of metro line, and due to Education sector and IT sector. Lots of students and employees are not only from Maharashtra but also all over India are coming to Pune. The Educational Institutes like NICMAR University, MIS International School, Bharati Vidyapeeth Rabindranath Tagore School of Excellence etc and IT Sectors companies like BOSCH, HILTI, TEC, Cummins etc.

4.6 Comparative analysis

As both study areas have been compared with several parameters mentioned below table. They are classified as range wise the color green indicates highest value, yellow indicates medium value, and red indicates lowest value.

5.0 Conclusion

As mentioned in above table the comparison between two study areas they are equal potential for both areas but in Vanaz to Ideal colony the property prices are already in higher values from last 10Years but growth percentage of that is lower compared another study area. In Kothrud the Offices Property prices are falling to -2.61% due to there is high demand for shops and residential plots and most of the IT offices are located in Baner, Hinjawadi like these areas where the new metro line under construction is proposed. In Ram Nagar to Baner Gaow there are 2 villages they are Balewadi and Baner will comparation of both villages except open land rest of the all-other land uses are having higher property prices will be compared to balewadi but not with Kothrud. The growth percentage is higher in Baner village compared with Balewadi and Kothrud. This is because in Kothrud there is already existing Metro line so there are highest property values since last 10 Years, but the growth percentage is low compared to other study area. But new proposed line with is under construction starts rising values due to Transportation facility is improved more so the land use got changing and there is hug demand compared to other study area. The Average Growth is like Kothrud: Balewadi: Baner is 1: 2.17: 3.54

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