

ANAROCK

RETAIL



TCCx: Redefining the Future of Retail Malls

The interplay of Technology, Capital & Customer Xperience



Foreword

The Indian retail sector has metamorphosed significantly over the last few decades. Rapid urbanization and digitization, rising disposable incomes and lifestyle changes of particularly the middle-class has led to a major revolution in the retail sector, projected to grow from US\$ 672 billion in 2017 to US\$ 1.2 trillion in 2021. Evolving rapidly from usual 'kirana shops' to large multi-format stores offering global experience to the e-commerce model that is highly technology-driven, the Indian retail sector has evolved.

Retail malls which came into existence in the late 90's expanded aggressively in the past two decades. Currently, there is 50 mn sq. ft. of mall stock (includes only leasable malls) already operational across the top 7 cities while nearly 32 mn sq. ft. is likely to be added to the current stock by 2022. Besides metros and Tier I cities, malls are also expanding aggressively across the top Tier II and Tier III cities

in India. From comprising mere 10% share of the total supply during the 2003-2012 period, the overall mall share in Tier II & Tier III cities is now expected to increase to 17% between 2013-2022 period.

Sensing immense opportunity in the Indian retail sector, private equity investors pumped in excess of US\$ 1.9 billion funding between 2015 to Q1 2019 period with majority inflows originating from US, followed by Singapore. Private equity players are aggressively looking to expand their retail portfolio in the country considering the growth potential the sector holds in the developing economy like India. Interestingly, the Indian retail sector also saw a number of platforms being created. The retail sector comprising over 21% of the total US\$ 8.8 billion worth platforms created since 2015 in the entire real estate sector. Creating more avenues for raising funds in today's cash-starved industry is a breather for the growing retail sector.

The report titled 'TCCx: Redefining the future of Retail Malls - The Interplay of Technology, Capital & Customer Xperience' highlights how the overall retail mall industry is evolving and how PropTech has started to penetrate across all processes within the retail sector so as to ease out life of both mall owners and retailers and help them create an experience and thus increase their profitability.

Product, diversity, and quality are no longer the only parameters that help satisfy customers in the retail spaces, rather customer experience is the brand-new tool that helps entice new-age customers. Personalization and tailor-made experience for buyers will help retail brands to lead and capture the market share.



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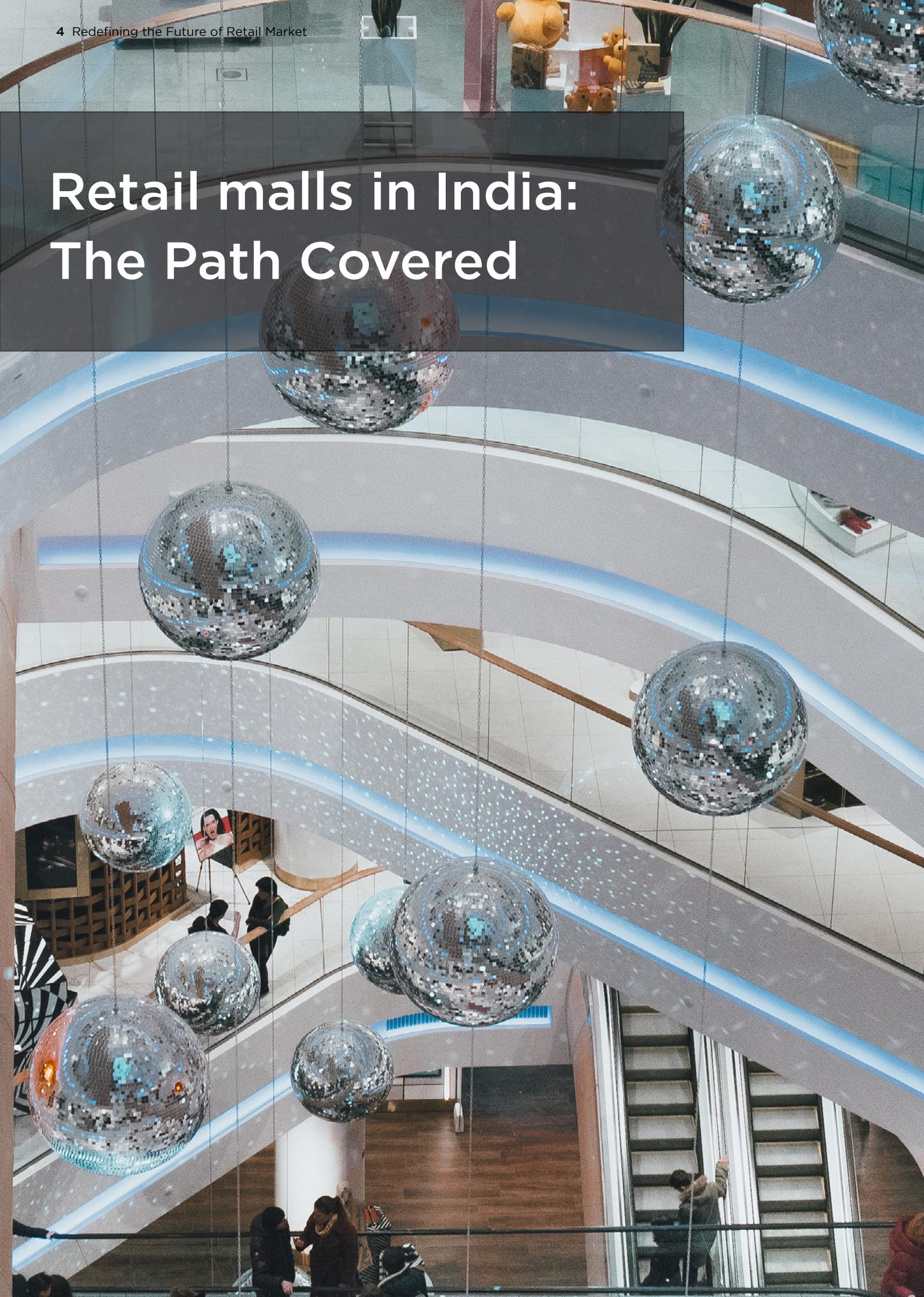
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Retail malls in India: The Path Covered



From traditional retail formats such as haats, peths, weekly bazaars, mandis and kirana stores, retailing in India has evolved tremendously over the past few decades and is today taken over by swanky malls. The great mall boom came to India in the early 2000s before which only three malls existed across the length and breadth of the country. Indian shoppers slowly but gradually developed the appetite to shop in a clean, climate-controlled and highly enabled environments which led to the aggressive expansion of malls in the country.

Rapid urbanization (Indian urban population that was to rise from 28.5% in 2001 to 33.6% in 2017 is expected to be 60% by 2050¹) and increasing consumer expenditure (from US\$ 1,824 billion in 2017 to US\$ 3,600 billion by 2020²) and lifestyle changes of particularly the middle-class is leading to a major revolution in the Indian retail sector, which is projected to grow from US\$ 0.7 trillion to US\$ 1.2 trillion in 2021³ Currently, the retail sector accounts for

over 10% of the total GDP and 8% of the overall employment generation in the country⁴.

Despite many hiccups including the recession of 2007-2008 and the onslaught of the e-commerce businesses, malls today have become serious business and are surely here to stay. In fact, retail malls are today an integral part of life amongst the urban Indian population. Even though India started late in terms of the development of retail malls compared to other nations, they have metamorphosed shopping from a need-driven activity to leisure time entertainment.

Having said that, the great Indian mall boom kick-started recently compared to other developed countries. The key aspect that makes India fare better than other nations is the fact that a huge volume of sales (91%) is driven through the brick-and-mortar stores.

Fig 1: Country-wise sales through brick & mortar stores



Source: Industry estimates

¹Census of India

²India Brand Equity Foundation (IBEF)

³India Brand Equity Foundation (IBEF)

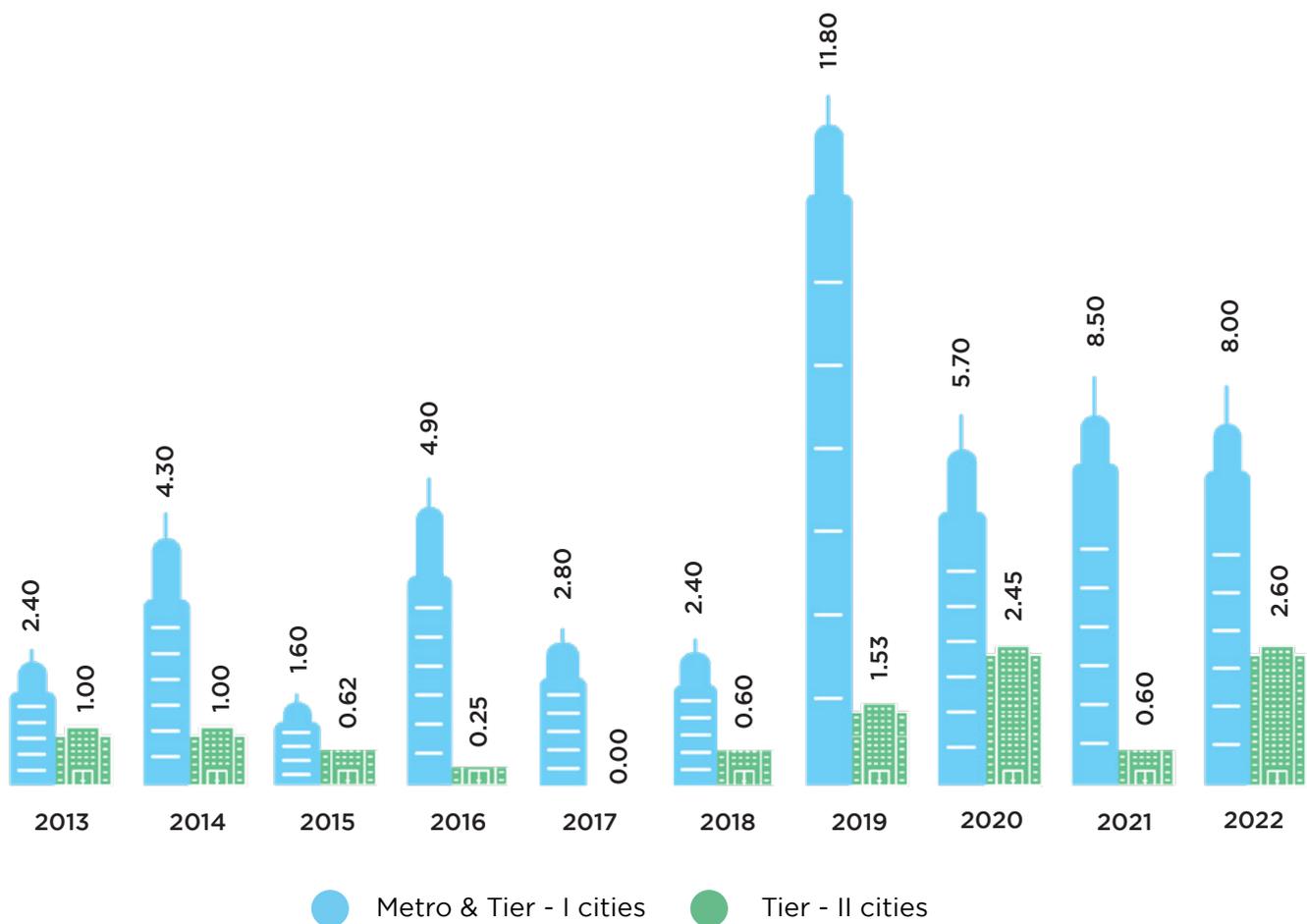
⁴India Brand Equity Foundation (IBEF)

Supply of Malls across Metro, Tier-I and Tier-II cities

Malls have penetrated aggressively across the top 7 cities in India over the years since its inception in early 2000s. Both metros and Tier-I cities witnessed continuous addition of new supply over the years. In fact, during the boom period (2000-2007) nearly 9.5 mn sq.ft. of leasable mall space entered these markets while nearly 16 mn⁵ sq.ft. of space was under construction across the top 7 cities in India. This massive supply eventually came into the market

during the recession period post 2008 which led to rise in vacancy levels in malls across these markets. As expected, several malls also saw closures during the period as they couldn't sustain the business and keep up with consumer demand. However, rationalization in new supply coupled with rising consumerism in India due to improvement in the economy has given a new lease of life to the existing and new retail malls over the past few years.

Fig 2: Supply of malls across the top 7 cities in India



Note: List of cities considered in Tier-II are: Chandigarh, Ahmedabad, Surat, Kochi, Amritsar, and Lucknow.
Supply across metros, Tier-I, Tier-II and Tier-III cities exclude strata sold malls and hypermarkets/supermarkets

Source: ANAROCK Research

⁵ ANAROCK Research

Fig 3: Current Mall stock across top 7 cities

	CITY	MALL STOCK (MN SQ.FT.)	MALL SPACE PER PERSON (SQ.FT.)*
	NCR	14.92	3.24
	MMR	11.83	0.95
	Bengaluru	7.60	0.91
	Chennai	5.99	1.29
	Pune	4.03	1.29
	Hyderabad	2.84	0.42
	Kolkata	2.62	0.58

Note: The above supply excludes hypermarkets/supermarkets and strata sold malls

* Per capita mall space is calculated on Census 2011 population

Population of metropolitan region is considered in MMR, NCR and Pune

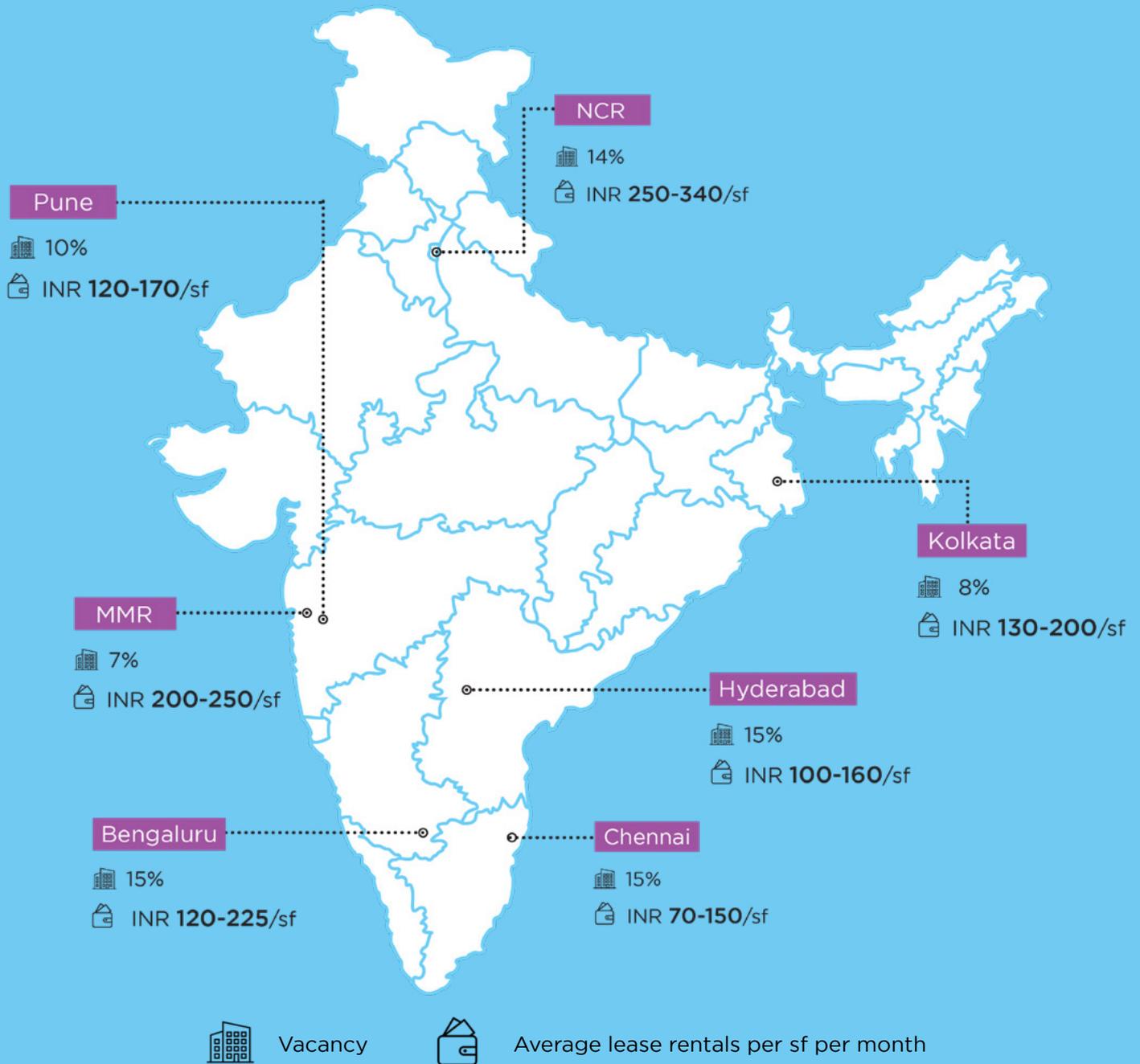
Source: ANAROCK Research

Realizing the untapped potential of malls beyond metros and Tier-I cities, developers soon started penetrating into Tier-II cities and launched new mall supply of nearly 3.4 mn sq.ft. (merely 10% share of the overall supply) between 2003 and 2012 as against 30.4 mn sq.ft. supply across metros and Tier-I cities. However, between 2013 to 2022, the new mall supply in Tier-II and Tier-III cities is likely to see a record jump - estimated to be nearly 10.7 mn sq.ft. (comprising 17% share of overall new

supply added across metro, Tier-I and select Tier-II cities).** The penetration and success of e-commerce in Tier-II and Tier-III cities in India, which is contributing to nearly 60% in sales of e-commerce business, gave developers the confidence to eye these smaller markets and tap the potential that they hold. The expansion rate of retail malls across Tier-II cities is expected to grow three times in the current decade (2013-2022) compared to the past decade (2003-2012).

** List of cities considered in Tier-II are: Chandigarh, Ahmedabad, Surat, Kochi, Amritsar, and Lucknow.

Vacancy & Rentals across the top 7 cities in India



Note: The above rentals are average prices for malls excluding high street and strata sold malls

Source: ANAROCK Research



NCR is one of the most expensive markets across the top 7 cities in India with average lease rentals in the range of INR 250-340/sf. The market currently holds the highest vacancy levels due to the large supply.



Southern region and the northern region contribute to the maximum vacancy levels across malls in the top 7 cities.



Southern India holds the **maximum vacancy** across top 7 cities in India



Share of supply addition across top 6 Tier-II cities **expected to increase** from 10% during 2003-2012 to 17% during 2013-2022



MMR and NCR have the **highest supply and lease rentals** across the top 7 cities in India



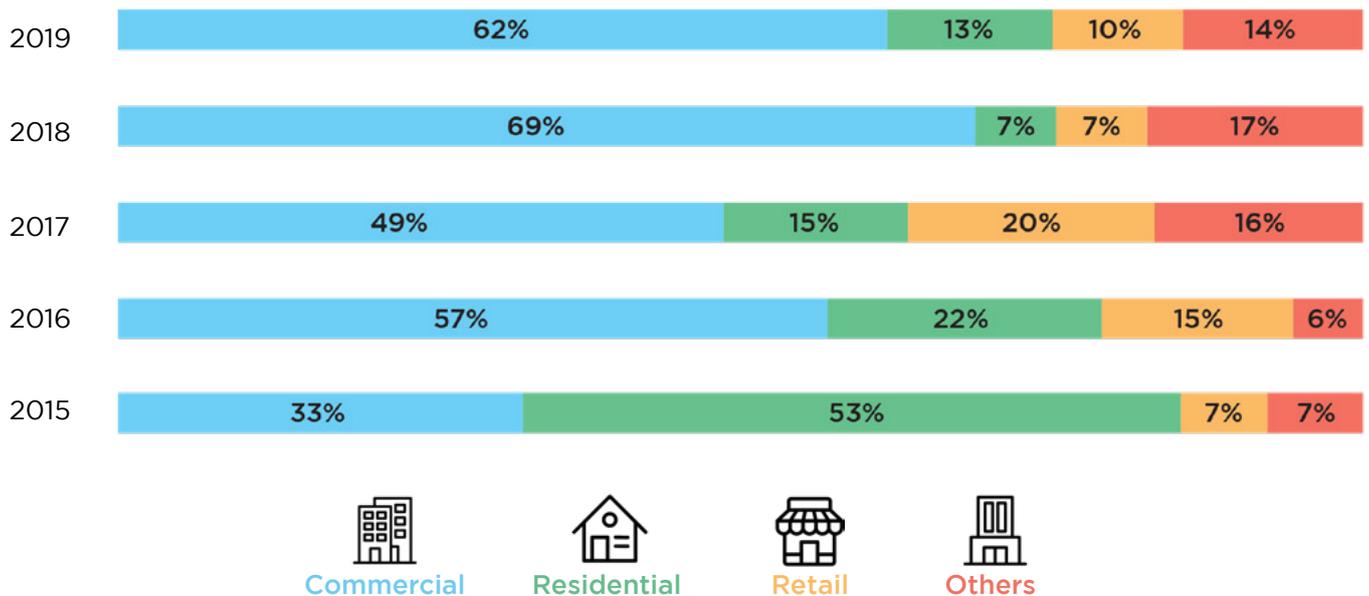
Retail Real Estate Maintaining Its Share Of Private Equity



Real estate has been a key sector attracting significant investments during the past few years. Since 2015, an estimated US\$ 14 billion of private equity investments have been made in the sector. While 2015 and 2016 were slow in terms of investments due to lack of transparency and entire sector sailing through tough times making it difficult for investor to enter the

market, the last two years (2017 & 2018) backed by change in policies (RERA, GST etc.) and the successful launch of India's first REIT, the sector has witnessed huge inflow of funds. Interestingly, during 2017 and 2018, the number of private equity deals decreased but the value of investments grew on grounds of improved confidence due to increased transparency and regulatory reforms.

Fig 4: Asset class-wise investments in real estate



Note: The difference in summation is due to rounding off

Source: Venture Intelligence & ANAROCK Research

Commercial office spaces remained at the center of investments post 2015 for private equity funds. Booming Indian economy, high demand for Grade A office space, policies favouring ease of doing business and relatively lower rentals attracted PE players towards commercial office spaces for investments. Post demonetization, investors largely shied away from investing in their otherwise favourite residential segment as housing sales went down significantly. Also, along with speculators, investors exited from the residential market which was henceforth completely driven by end-users. Due to the policy overhaul, these end-users went in a wait-and-watch mode which eventually led to slow-down of sales. However, with the dust of these policies settling in, there was a fair amount of activity in the residential segment in the first quarter of 2019. Meanwhile, with the government pushing affordable housing segment, major developers came forward to grab a pie of this segment. While there have

been no meaningful investments by private equity players in affordable segment so far, it is likely that it will see some traction in the coming quarters.

Moving on, Indian retail industry is one of the promising sectors with huge growth potential. Policy boosters, growing transparency, accountability and ease of doing business across sectors in India have given a major boost to the retail industry's potential to attract private equity investment. India's retail industry is 5th largest preferred destination globally, valued at US\$ 670 Billion⁶ as of 2017, and is increasing day by day due to the rising middle-class and their increasing spending power. Moreover, rising demand for superior customer experience, expansion of big brands in tier-II and tier-III cities, transformed business strategies and the shift from unorganized to organized businesses have been key factors driving this retail growth.

⁶ India Brand Equity Foundation (IBEF)

Fig 5: Private Equity Investment in Indian Retail Sector



Source: ANAROCK Research & Venture Intelligence

PE investors bolster India retail portfolio

The retail sector has attracted a cumulative of US\$ 1.9 Billion between 2015 and Q1 2019 with more than 60% investments coming in the last two years (2017 and 2018), thus making these the best years for the sector in recent times. Notwithstanding the decline in deal activity in the second half of 2018 following the liquidity issues faced by the NBFCs, the retail segment in the first 3 months of 2019 managed to

attract close to US\$ 115 million investments. The introduction of the Goods and Service Tax (GST) as a single unified tax system in July 2017 had a huge impact on the retail industry attracting nearly US\$ 900 Million during the period, recording a growth of 55% compared to the preceding year. This policy not only streamlined the taxation structure but also piloted increase in start-ups which further led to a rise in the economic growth of the country.



Fig 6: Country-wise origin of funds in Retail sector (2015-Q1 2019)



Source: ANAROCK Research & Venture Intelligence

Changing funding pattern in Retail Real Estate

Private equity funds continued to pump in liquidity in the retail sector via conventional methods of fundraising including debt, equity or structured forms. However, with the evolving

funding scenario, the sector is expected to witness new trends and methods of fundraising. Two key trends that are set to change the fundraising scenario for the retail industry are:

 Platform-level deals

 Retail REITs

Platform-level deals gain traction

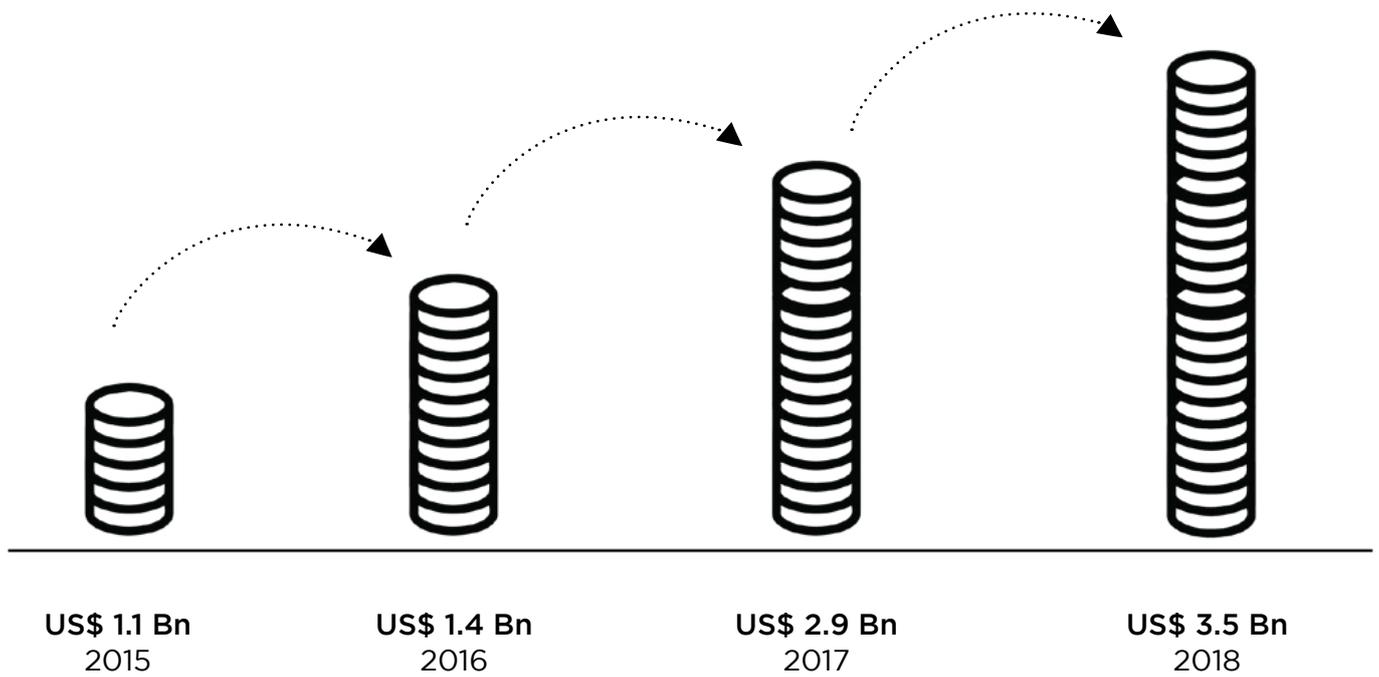
Since 2015, Indian real estate saw 25 platforms getting created aggregating to US\$ 8.8 billion by global investors like Warburg Pincus, Goldman Sachs, CPPIB, Allianz, Ascendas, Xander, CDPQ, APG, etc. The key purpose of these platform creation was to create a pool that can be invested, if the investment criteria is met, without spending long time before each investment. Majorly, these deals are sector focused and were created with an aim to build long term partnership with the other partner - mostly a developer.

Of the total funding available, 1/3rd is dedicated to logistics and warehousing followed by residential and retail. India witnessed the

creation of various platforms, aggregating to US\$ 2.1 Billion, with a focus to invest in retail space - core or greenfield. Deployment of funds from such platforms will boost the funding scenario of retail space and increase its share in the investment pie.

While these sectors have so far not received enough funding from PE investors, the magnitude of platforms shows the presence of investor interest that has due to some reasons not got converted into deals. Understandably, platforms for commercial space is 17% as a lot of equity deals have already happened or are happening at the project level.

Fig 7: Platforms created (2015-2018)



Source: ANAROCK Research



21% of the Real Estate platforms are **focused towards Retail sector**

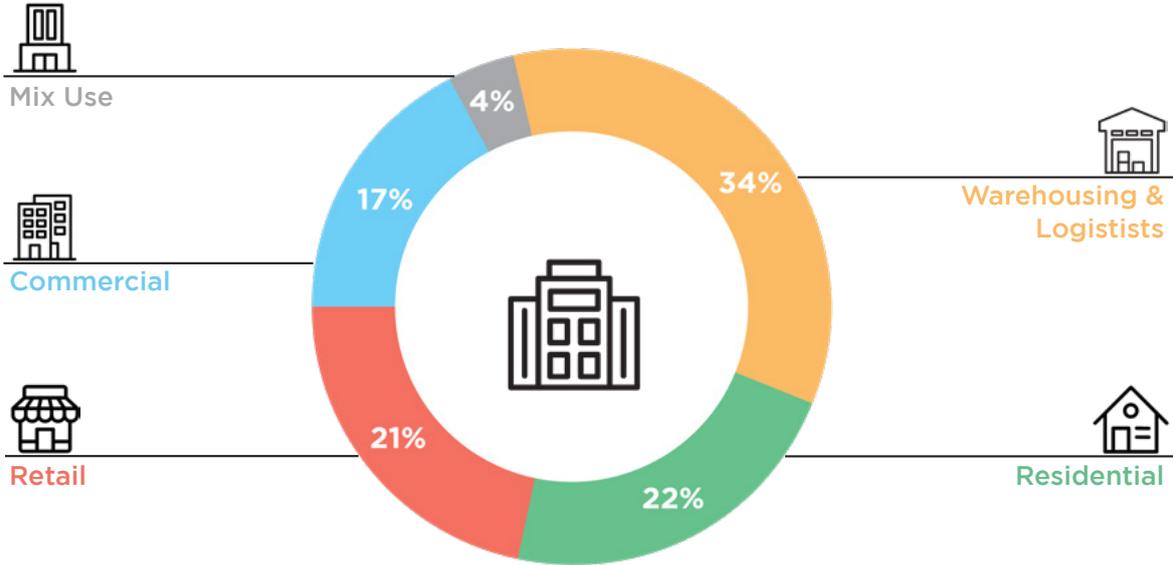


Platforms worth US\$ 2.1 billion created for Retail sector in India



Platform deals in **Indian Real Estate** gaining traction

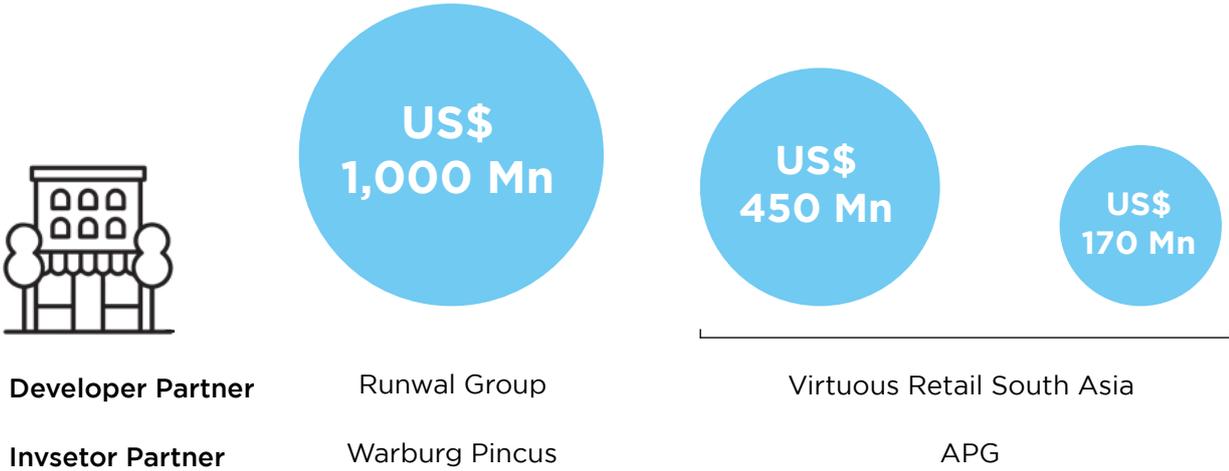
Fig 8: Asset class-wise share of platforms created since 2015



Note: Residential includes Co-living platforms

Source: ANAROCK Research

Major Platforms created since 2015 in the retail sector:



Source: ANAROCK Research

Is India Retail REIT ready?

Real Estate Investment Trusts (REITs) are investment vehicles that own, operate and manage a portfolio of income generating properties. As of now, properties being considered in India are largely commercial including office spaces that generate a rental income, likely to be followed by other REITable assets in India including shopping malls, hotels, etc. Post its registration with SEBI, units of REITs will have to be mandatorily listed on exchanges and will be traded like any other securities.

Like stocks, small investors can buy REIT units from both the primary and secondary markets. Thus, REITs not only assist in completing the real estate development cycle and provide the required liquidity to developers and exit mechanism to the investors, but they also allow individual users to earn income via real estate ownership (of office buildings, shopping malls, apartments, warehouses, and mortgages) without really purchasing any assets.

Fig 9: Stages of REIT regime maturity



In India, REITs are still in a nascent stage, with only one Commercial REIT listed (April 2019) in the market so far. Hence, it is still early to predict the performance of this fund-raising method that also provides an exit route to the investors. Once the listing completes a full year of operations, only then its actual acceptance in the market can be understood and it will be possible to envision the future of such investment vehicles in other segments. That said, if we consider its performance in

developed nations, one can easily predict its success in India given that there is still high scope for future growth in the country. REIT as a tool to raise funds for the retail sector is an option that the developers can avail once the fund-raising instrument moves from “Nascent” to “Emerging” stage. However, the retail REIT structure and performance may not be directly comparable with the commercial office sector due to the following reasons:



The Indian retail industry has **moved from long term leasing to short term leasing tenure** (3-5 years) so as to constantly update the brand-mix within the mall which is still above 5 years across other countries in the world.



The industry has moved from normal leasing to revenue sharing model which leads to **low/stable rental yields**.



Limited existing **supply of grade A malls**.



Majority of small developers **focused on strata sales model** which hampers the rental yields of the mall.



Penetration of **e-commerce and online retailing** in the industry.

Since the requirement of REIT listing is 90% or higher occupancy and operational infrastructure, majority malls may not qualify for the listing process. However, if the above parameters are

tackled and/or re-invented by the developers, retail REITs may witness success in India in the long term.



Retail REIT in India may **not be directly comparable** to commercial REIT



Before the launch of official Retail REIT in India, issues like smaller lease tenure, changing business models etc. **needs to be tackled first**

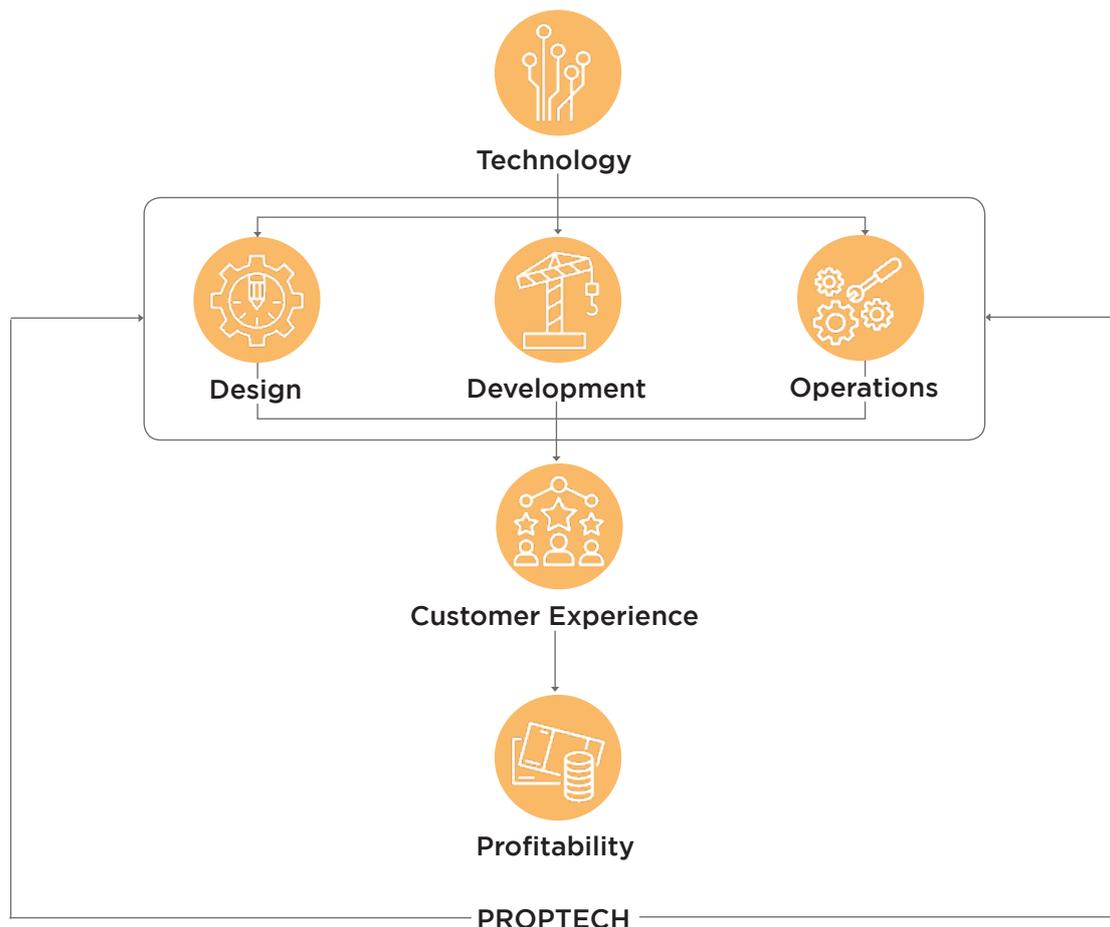
Technology: Changing Lives And Increasing Efficiency



Technology is playing a pivotal role in our day-to-day lives. From basic needs to luxury, all products are today available within a few clicks. With the increasing penetration of technology, the dependency on tech is increasing. From the pre-tech era, where everything was dependent on human effort, technology has helped in reducing the human effort for all the basic and advanced things and increased the overall efficiency. Apart from our daily lives, the impact of technology has extended towards universe from real estate, infrastructure development and operations, etc. to ease out the processes involved in every sector.

Convergence is a trend and is digging in for the long haul. It isn't only a craze and most ventures are influenced, some quicker than the others. The retail business is no more peculiar to change. From the early days of shopping from mom-and-pop stores, the segment has developed to retail establishments in urban areas, the uber shopping in suburb focuses where everything could be found under one roof, which made nearby stores close down. Technology has become the pillar of strength for the retail sector in India. From the basic design stage to creating a superior customer experience, technology has become the baseline of the retail sector.

Fig 10: Impact of technology on the retail sector



Property technology (PropTech) is the new buzzword which is about to disrupt the real estate industry. PropTech is one small part of a wider digital transformation in the property industry. It considers both the technological and mentality change of the real estate industry,

and its consumers' attitude, movements and transactions. It involves the commercial and the construction side of the industry and streamlines and eases the entire process from designing, development, leasing, creating a customer experience and in-turn improving profitability.

Mall Designing

The Indian retail real estate market is barely two decades old and during the course, it has already seen the worst phase. The downtrend witnessed by this sector came with a lot of learnings to the developers as well as the retailers. The ups and downs that the business witnessed imbibed a deep thought that conceptualization of a shopping mall was not like building a residential or commercial tower and hence professional/scientific assistance became essential. Some other attributes which had contributed in this catastrophic story were multiple floors, high vacancy rates, unviable location, and poor commercialization.

Important factors in designing



Mall
Layout



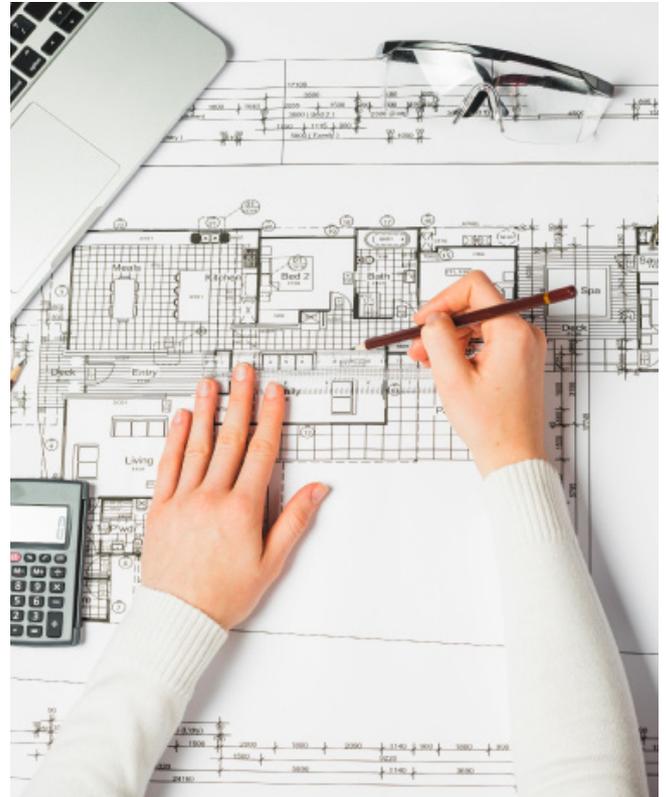
Customer Walk
Flow Management

The mall must focus on

Creating a layout which gives maximum visibility to the tenants, providing them with ample display space.

Tactfully and technically using the dead spaces, creating focal points to attract the customers.

With malls turning into community centers, it is becoming difficult for mall managers to ably manage the vast number of visitors to the malls. The mall entry doors cannot be simply closed for visitors/shoppers after having enough crowd. Instead, mall developers must consider this aspect while building a mall. Traffic management includes managing foot traffic into the mall and parking facilities.



2D Plan

Foot traffic management involves crowd management inside the operational area of a mall. The flow of people is related to the design of the mall and the spatial distribution of its tenants. For example, a star-shaped mall tends to have a problem of crowding in the center of the mall, as everyone must pass through the center while moving from one side to the other. Circular malls as compared to usual malls, usually do not face the problem of traffic congestion because these designs tend to have better pedestrian flow and less jamming.

Mall owners/developers have over the years learned from the mistakes made in the initial years while designing a mall – one of the key reasons that led to failure and closure of many malls in the country within a short span of time. To overcome the challenges, these developers have started opting for new technologies/software to understand the design of a mall and make it more customer-centric.



3D Plan

Shifting from a 2D modelling to 3D modelling was one step towards it which helped them understand how and where additional free usage space can be created to manage the visitor traffic that the mall is expected to generate in the future periods. This also helps to create more and more spaces for experience and engagement zones within the building premises.

From basic AutoCAD drawings, architects and designers have moved to softwares such as “Revit”, “Archi Cad” etc. to enhance the overall designing and ensure that the focus on customer experience remains from the basic stages itself. These softwares also help the architects and designers to visualize the placement of stores within the mall and place them appropriately so as to increase visibility and in-turn enhance the customer experience.

Fig 12: Key factors to be considered while designing a mall



These factors play a vital role in deciding the future of a mall in terms of attracting key

tenants and running profitable operations, and as a result, impacts the entire lifecycle of a mall.

Mall Development

Construction of a building is one of the major factors where a developer needs to be extremely careful. Nearly 50-60% of the overall cost of a project is involved in the construction

process (excluding land cost). Procuring the right materials to deploying the right construction technique are the key to save costs and increase profitability.

Fig 13: Benefits of improving/changing construction techniques and increasing dependency of technology



Fig 14: Latest technologies adopted in building construction and their status in India

TECHNOLOGY	USAGE IN INDIA	BENEFITS
 Prefabrication		Increases the construction speed
 3D Printing		Helps increase construction speed at lower costs and also utility of space as per need can be altered
 Green & Innovative Materials		Lowers environmental pollution and increases the construction speed
 Robotics		Increases the construction speed and reduces the overall cost
 Building Information Modelling		Better collaboration and communication. Also better pre-construction project visualization

● High ● Low

In retail malls across India, developers have gradually shifted from conventional construction materials to advanced and green materials in order to make their structures more efficient and reduce the overall environmental pollution caused by the structure. However, there still lies a scope of advancement which needs to be adapted aggressively by the Indian construction sector.

Malls across the globe have advanced many levels where they host an in-house aquarium, amusement parks, etc. to increase the entertainment avenues and enrich the shopping experience. For instance, Mall of Dubai houses the world's largest indoor aquarium and underwater zoo which offers the visitors facilities such as tours, scuba diving, etc.

Replacing the basic Portland Cement (PC) concrete with Glass Fiber Reinforced Concrete (GFRC) a technology introduced in UK in 1970 - increases the flexure and tensile strength and allows it, to use thin-wall castings. It helps to reduce consumption of steel and is

highly energy-efficient and is quick and easy to install. Though malls in India are still largely built with concrete blocks - which replaced normal bricks to increase construction speed and reduce dead-weight of the building ; yet they are costly compared to the GFRC.



Operations & Leasing

Property technology – popularly known as PropTech - refers to an innovation that is poised to disrupt the way real estate processes are/ will be done. While PropTech is not a new-to-

the-industry concept, a new wave has presented even more sophisticated capabilities. For mall operations, today's PropTech incorporates:



Artificial Intelligence (AI)



Big Data and Analytics



Virtual Reality (VR) and Augmented Reality (AR)



Computer-Aided Design (CAD)

Currently, usage of technology in retail sector is largely limited to designing or creating customer experiences but its scope has not really reached in leasing of mall spaces. Mall

leasing in India continues to be done via pure offline mode either through real estate brokers or directly through the developers based on the requirement and availability of space.

Fig 15: Modernized transaction processes

WHO



potential buyers, investors, & tenants

WHAT



Tools like VR and AR, drone technology & CAD

BENEFITS



potentially faster, more insightful transaction

Blackbird - a VR and market intelligence tool - is just one of many resources being used to alter the way real estate transactions are done. Users can view actual CAD renderings of properties, narrow their search based on demographics, tax incentives, transit options and more, and view

details on amenities. With access to intelligent machines and big data, real estate brokers can streamline many traditional transaction processes, and even match investors to a property type.

Fig 16: Penetration of PropTech in Retail Industry

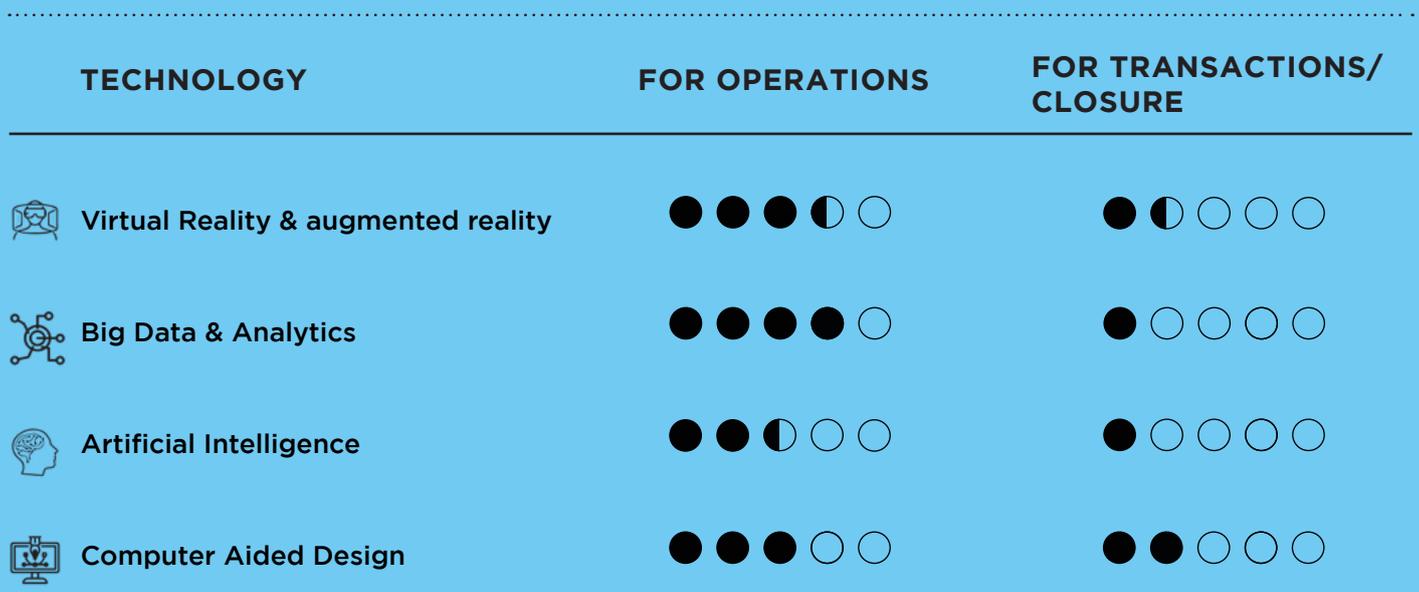


Fig 17: Penetration of Artificial Intelligence in the real estate



With the world moving towards technological advancements, the need of the hour is to shift towards PropTech which will make life easier and in-turn improve profitability.

Technology Penetration Enriching Customer Experience in Malls

Experiential shopping is surely the ‘buzzword’ in the Indian retail block. Let’s delve deep into ways and means adopted by mall operators to

provide a holistic shopping experience to the consumers.

Fig 18: Penetration of technology in different mall segments

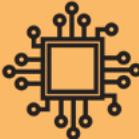
CATEGORY	GROCERY	ENTERTAINMENT	FASHION	MULTIPLEX
 Virtual Reality		✓	✓	✓
 Bar Code	✓	✓	✓	✓
 Data Analytics	✓	✓	✓	✓
 Sensor Fusion Tech	✓		✓	

As depicted, several retail outlets are relying on different types of technologies for improving experience of their customers. From a fast-paced check-out process to identifying the buying behavior of their customers, retailers are largely focusing on various aspects that eventually create a holistic customer experience for a better turnaround. This is largely because today’s customer is quite demanding, and their composition is vastly different from that a couple of decades ago. These days, consumers/shoppers are looking for a holistic shopping experience and not merely looking to close transactions of products.

One major technological advancement in the retail industry is the merging of online and offline businesses. All major players and mall developers have aided themselves with technology in terms of mobile apps and/or mobile/computer websites to make the buying decision more conclusive for the buyers. But the biggest challenge that lies with the introduction of technology in offline retailing is to maintain it. It has been observed that many players have created online platforms to showcase their presence in the online market but are unable to place/maintain it in their regular business which leads to decreasing traffic on the online platforms and in fact is detrimental to their business.



Blockchain
The Bid to
Standardize
Recordkeeping
and Data Handling



**Top 5 technologies
which are set to change
the current retail industry**



Augmented Reality
To Reinvigorate the
In-Store Experience



Artificial Intelligence
Machine Learning
Works its Way into
Customer Journey



In-Car Screens
Will Bring Brand
Experience Into Cars



Voice Capabilities
Will Become Second
Nature



Many of these technological interventions/ improvements are already being implemented across various stores/malls so as to lead the race of creating an experience and attract higher footfalls to the stores/malls.

Globally, retailers have increased their usage of the latest technologies to enrich the shopping experience. Few examples where the use of technology has helped increase customer experience are stated below:

Hema's QR Codes:

In 2016, Alibaba opened its first Hema Store in China. The premise of the supermarket is to combine elements of online and offline shopping. In-store customers can scan QR codes on products to get more information on them and add the same to their carts and get the same product home delivered. Another impressive element is Hema's in-store dining experience, which is powered by robots. Customers can use the Hema app to organize a seat at a table, as well as order items from the store to be cooked. Robots are used to move items from shelves to the kitchen and deliver the meals when they are ready.

7Fresh's autonomous shopping carts:

7Fresh-which first opened in 2018 in China, has implemented smart shopping carts (which follows the customer instead of having to be pushed). The stores also include 'magic mirrors' that senses when an item is picked up and then display information about it.

Specsavers' Frame Style tool:

The brand has launched a new in-store service to make buying frames much easier. Frame Styler - which works via in-store tablets - is an imaging tool that produces a 3D model of the customer's face. From this, it selects the glasses that best suit the person's face shape, gender, and age. The customers can then try on multiple styles in 3D, easily and quickly comparing frames in seconds.



Nike's Speed Shop:

In 2018, Nike opened a flagship store in New York in which alongside customization studios and instant checkout points, the store also has an option of 'Speed Shop' which allows the customer to reserve shoes online in a locker which can be unlocked through a mobile app to try them in-store. The same application also helps them to escape the queue and pay online before leaving the store.

Amazon Go's automated checkout:

Amazon has surely revolutionized the online shopping experience, but the brand is now looking to capture a pie of physical retail too. The Go stores use a combination of computer vision, deep learning, and sensor fusion technology to automate the payment and checkout process. This means that customers can enter the store, pick-up items, and leave without queuing or checking out, while the payment is automatically made through the Amazon Go app. The entire store operates without any salesperson's intervention.

Ted Baker's Interactive windows:

Store windows are often used to catch the attention of shoppers, but Ted Baker took this one step further in 2017 by making its exterior interactive. In partnership with Nexus Studios, it installed interactive windows in its Regent Street store to promote its 'Keeping up with the Bakers' campaign. Shoppers were encouraged to place their hands in the window, triggering a camera to photograph their face (as well as prompting sound effects); the image would then be placed into scenes from 'Keeping up with the Bakers' and shared across social media.

Audi's VR Showroom:

The experience of buying a car no longer starts at the dealership, with consumers typically researching via websites, social media, and motor forums. In 2017, Audi launched a virtual reality experience in global showrooms to offer a more personalized CX. The VR experience allows consumers to configure their dream car, as well as explore the car's exterior and interior in realistic detail. The experience also includes special 'Audi moments', such as the Le Mans 24 Hours race, whereby users can witness the pit-stop atmosphere.



The Way Forward



Indian Retail sector is evolving and is constantly re-inventing itself to compete in a market where the competition is not just limited to offline peers but is also extending to the online world. To overcome the challenges arising from rising penetration of e-commerce businesses and further improving their profitability, the retail sector has started utilizing technology from the very start - from mall designing to moving on to create a product with a long lifespan to further accentuating customer experience. Also, builders are not just limiting technology usage in Tier-I cities alone but also expanding its reach to smaller towns and cities because it is here where the future growth lies.

However, since technology is consistently evolving, so must its users. No denying, the cost of implementing technology for creating a better customer experience could be high initially but it is also imperative that both mall developers and retailers keep themselves abreast with the latest technological trends. To be successful, they need to constantly maintain and upgrade themselves because only then their business can flourish in the long run.

Moreover, while we enter the next leg of wireless communications - 5G technology - penetration of technology must not remain limited to building and operating retail malls. Alienating themselves from the earlier traditional ways of designing, building and operating malls and moving on to adopting PropTech in just everything will make life of developers/operators far more easier and businesses profitable.



ANAROCK is India's leading independent real estate services company with a presence across India and the Middle East. The Chairman, Mr. Anuj Puri, is a highly respected industry veteran and India's most prominent real estate thought leader.

The Company has diversified interests across the real estate lifecycle and deploys its proprietary technology platform to accelerate marketing and sales. ANAROCK's services include Residential Broking and Technology, Retail, Investment Banking, Hospitality (via HVS ANAROCK), Land Services, Warehousing and Logistics, Investment Management, Research and Strategic Consulting.

The Company has a unique business model, which is an amalgamation of traditional product sales supported by a modern technology platform with automated analytical and reporting tools. This offers timely solutions to its clients, while delivering financially favourable and efficient results.

ANAROCK has a team of over 1800 certified and experienced real estate professionals who operate across all major Indian and GCC markets, and within a period of two years, has successfully completed over 300 exclusive project mandates. ANAROCK also manages over 80,000 established channel partners to ensure global business coverage.

Our assurance of consistent ethical dealing with clients and partners reflects our motto - Values Over Value.

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Our team specialises in Retail Consulting and Retail Transaction Advisory & Management Services for our Retail & Leisure verticals that extensively cover the categories of Fashion, Home needs, Utilities, F&B and Entertainment.

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