

Big box beckons

GST set to alter the warehousing landscape

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1 Haryana, Assam to be new warehousing hubs for durables, FMCG

CRISIL Research's analysis of supply chains in the consumer durables and fast-moving consumer goods (FMCG) sectors reveals warehousing cost for consumer durables is set to halve, and will fall by 25-30% for FMCGs following the implementation of the Goods and Services Tax (GST) regime.

Consequently, the number of warehouses that a consumer durables company could reduce from a typical 25-30 to 10-12, and from 45-50 to 30-35 for an FMCG company. And the size of warehouses will be become bigger, and turn into the so-called big boxes.

As for warehousing hubs, we have analysed the five major ones today – Mumbai, National Capital Region (NCR), Bengaluru, Hyderabad and Kolkata – which will retain their importance being significant consumption centres for both consumer durables and FMCG. However, new hubs will also emerge in Assam and Haryana. But Nagpur is unlikely to emerge as a warehousing hub in the near term.

Warehousing consolidation on the cards, Haryana hot

Haryana is preferred as a consolidated consumer durables and FMCG hub compared with New Delhi or Ghaziabad on account of it being one of the highest consumption markets in NCR, within 300 km from major markets such as Punjab and Delhi, and 350-450 km from Rajasthan, Himachal Pradesh and Uttarakhand.

Besides, Haryana's central location in NCR, easy land availability, relatively cheap cost of land, its status as a key consumption market and connectivity with the Golden Quadrilateral make it a preferred location. Moreover, the interior regions of Haryana such as Faridabad, Manesar and Kundli have good road connectivity

While New Delhi is one of the biggest consumption markets in India, as

per NCR Master Plan 2031, it cannot have warehousing in a commercial zone. Besides, urbanisation has pushed up land prices making things difficult.

On the other hand, Ghaziabad lacks land, and the National Highway 71 which courses through it is congested due to city traffic and traffic from nearby residential areas. Connectivity in the interiors of Ghaziabad is also poor. Besides, it has low per capita consumption compared with other NCR locations and it takes significant time (6-9 months) for land conversion for warehousing. However, Ghaziabad can continue as a FMCG warehousing hub as Uttar Pradesh is densely populated.

Nagpur not to emerge as hub in near term

Nagpur is unlikely to emerge as a major consumer durables and FMCG warehousing hub in the near term due to GST, as it is currently neither a major consumption market nor manufacturing hub

Despite being in central India, it is more than 800 km from major consumption markets such as Mumbai, Delhi (NCR), Bengaluru, Chennai and Kolkata. Most of the warehousing demand for consumer durables emanates from north India as it is the largest consumption market. However, as most of the consumer durables components are imported through ports, warehousing demand is in the west and south of the country.

However, Nagpur may be preferred by a few FMCG companies to serve parts of Madhya Pradesh such as Jabalpur, as well as some parts of Telangana, given the low turnaround time (TAT) of 24 hours. Going forward, if Nagpur attracts investments for manufacturing due to the government's move to make it a National Investment Manufacturing zone, it may become a warehousing hub over the long term.

Excise benefit extension means Guwahati would be FMCG hub

Guwahati will emerge as a warehousing hub following extension of excise duty benefits in the north-east, where most FMCG companies have expanded manufacturing facilities. It is centrally located and equidistant from key consumption markets in North-East. High land costs and narrow roads within Guwahati resulting in traffic congestion could act as inhibitors.

Key existing consumer durables and FMCG warehousing hubs like Mumbai, NCR, Bengaluru, Hyderabad and Kolkata, being major consumption markets, will continue to thrive.

In the west, traditional consumer durables and FMCG hubs in Maharashtra will continue to hold sway. Bhiwandi can cater to several parts of Maharashtra including Nashik, Aurangabad and Pune within a 250-350 km radius. Most of Gujarat can be served by Ahmedabad, while Bhiwandi can act as a hub to places like Surat.

In the south, Hubballi, Bengaluru/Chennai and Hyderabad could be prospective sites for consumer durables and FMCG warehouse consolidation. Hubballi can serve the requirements of north Karnataka

and Goa, which are 200-300 km away, while Bengaluru/Chennai can serve south Karnataka, Tamilnadu and Kerala, which are 300-400 km away. Hyderabad can cater to Telangana and Andhra Pradesh, which are within a 300-400 km range. However, for the FMCG sector, Coimbatore could also act as hub to serve Tamil Nadu and Kerala.

In the east, Kolkata will remain a major hub for consumer durables and FMCG as it can serve Jharkhand, Bihar, north-eastern states and parts of Chhattisgarh, all of which are within a 500-600 km range.

CRISIL Research's analysis indicates that warehouses for consumer durables will see more consolidation in comparison to FMCG as they have a turnaround time (TAT) of 48 hours. Before GST, warehouses were set up in every state to save on Central Sales Tax. Now, logistical advantages will play a bigger role in the setting up of warehouses. Hence, we believe warehouses within states will consolidate and the warehousing cost for consumer durables will almost halve.

However, for the FMCG sector, the TAT is even lower at 24 hours. Therefore, 2-3 warehouses per state would be consolidated into at least one. Hence, the reduction in warehousing cost would be lower.

Bulk of consolidation to be in consumer durables warehouses



Parameters	Consumer durables	FMCG
Warehouses	Before GST: 25-30 After GST: 10-12	Before GST: 45-50 After GST: 30-35
Reduction in warehousing cost	45-50%	25-30%

Source: CRISIL Research

North

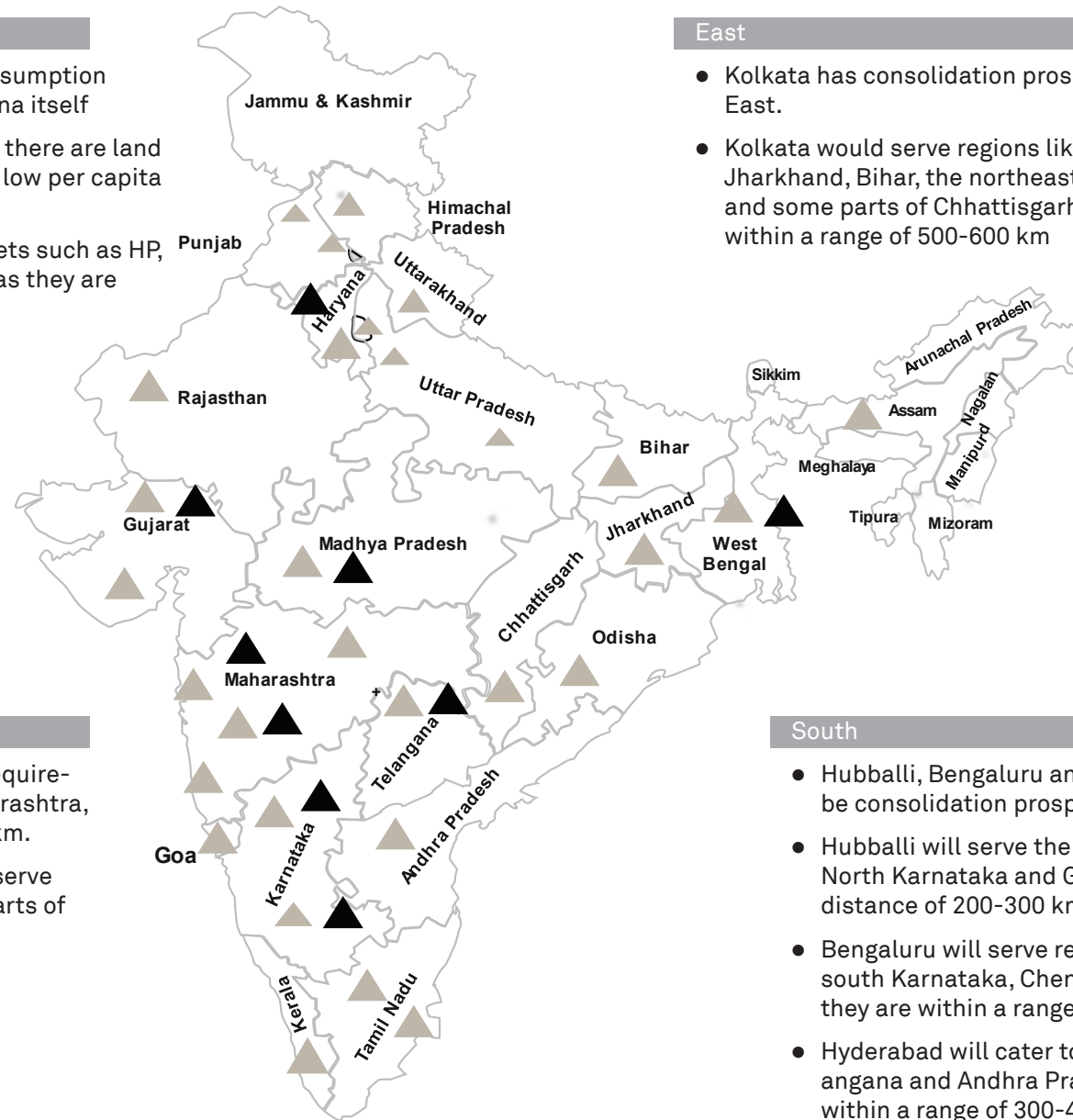
- Haryana is the centre of major consumption markets - Punjab, Delhi and Haryana itself
- Ghaziabad will not be preferred as there are land constraints, poor connectivity and low per capita consumption
- Haryana also caters to other markets such as HP, Uttarakhand, J&K, and Rajasthan as they are within a range of 350-450 km



Consumer durables

West

- Bhiwandi will be able to cater to requirements of Surat, the whole of Maharashtra, as it is within a range of 250- 350 km.
- Ahmedabad would be required to serve other parts of Gujarat and some parts of Rajasthan.



East

- Kolkata has consolidation prospects in East.
- Kolkata would serve regions like Jharkhand, Bihar, the northeastern states and some parts of Chhattisgarh as they are within a range of 500-600 km

South

- Hubballi, Bengaluru and Hyderabad could be consolidation prospects in the South
- Hubballi will serve the requirements of North Karnataka and Goa due to short distance of 200-300 kms
- Bengaluru will serve regions including south Karnataka, Chennai and Kerala as they are within a range of 300-400 km
- Hyderabad will cater to regions like Telangana and Andhra Pradesh as they are within a range of 300-400 km

Grey icons indicate pre GST and Black icons indicate post GST

Source: Industry, CRISIL Research

North

- Haryana will be a prospective consolidated hub as it is located in the centre of major consumption markets like Punjab, Delhi and Haryana itself
- Due to low TAT of 24 hours, another warehouse would be required to serve a densely populated state like Uttar Pradesh to ensure ready availability of stock at retail outlets
- Haryana and Ghaziabad will both continue to operate as hubs on account of close proximity to Delhi, a major consumption market



FMCG

West

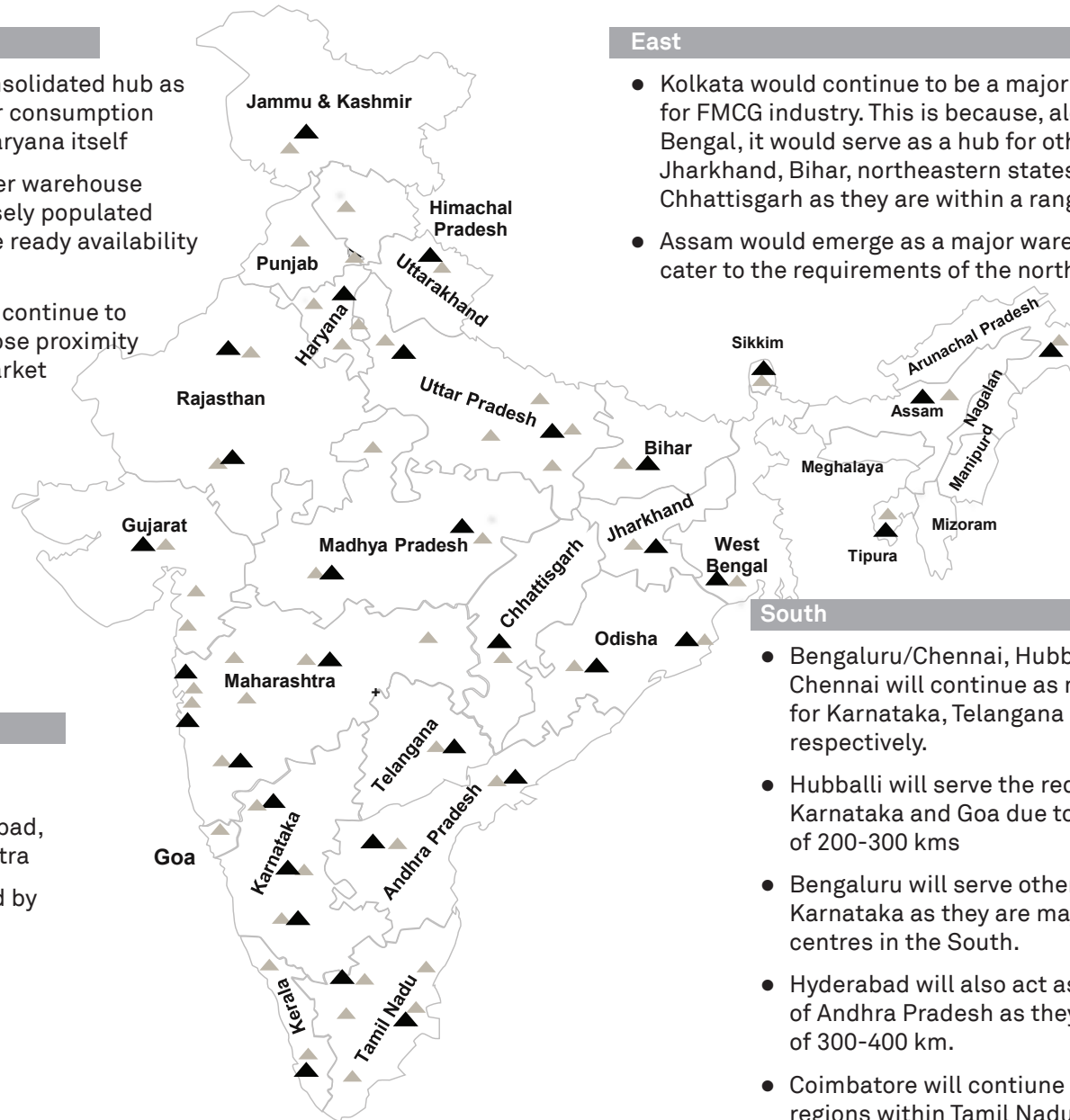
- Bhiwandi will be able to cater to requirements of Surat, parts of Maharashtra like Nashik, Aurangabad, Pune and other parts of Maharashtra
- The whole of Gujarat will be served by Ahmedabad and Bhiwandi

East

- Kolkata would continue to be a major warehousing hub for FMCG industry. This is because, along with West Bengal, it would serve as a hub for other spokes i.e. Jharkhand, Bihar, northeastern states and some parts of Chhattisgarh as they are within a range of 500-600 km.
- Assam would emerge as a major warehousing location to cater to the requirements of the northeastern states

South

- Bengaluru/Chennai, Hubballi, Hyderabad and Chennai will continue as major warehouses for Karnataka, Telangana and Tamil Nadu, respectively.
- Hubballi will serve the requirements of North Karnataka and Goa due to the short distance of 200-300 kms
- Bengaluru will serve other regions of Karnataka as they are major consumption centres in the South.
- Hyderabad will also act as a hub for regions of Andhra Pradesh as they are within a range of 300-400 km.
- Coimbatore will continue to serve other regions within Tamil Nadu and Kerala



Grey icons indicate pre GST and Black icons indicate post GST

Source: Industry, CRISIL Research

2 Bulk of consolidation to be in NCR

Haryana preferred as consolidated warehouse hub within NCR

CRISIL Research's supply chain analysis of the consumer durables and FMCG sectors reveals that most warehouse consolidation in India owing to GST will occur in NCR. Haryana will be preferred as a consolidated hub as it is the key consumption market within NCR and is centrally located, being only 250-300 km away from other major markets. However, entry restrictions on heavy vehicles passing through Delhi (one of the key consumption markets within NCR) could pose a challenge.

Consumption of consumer durables highest in Haryana, followed by Delhi

Particulars	Total units consumed per 1000 households
Haryana	2,680
Delhi	2,634
Chandigarh	2,580
Punjab	2,447
Jammu & Kashmir	2,211
Uttarakhand	2,167
Rajasthan	1,907
Uttar Pradesh	1,700
Himachal Pradesh	1,681

Source: MOSPI Household survey

Note: Urban break-up has been considered

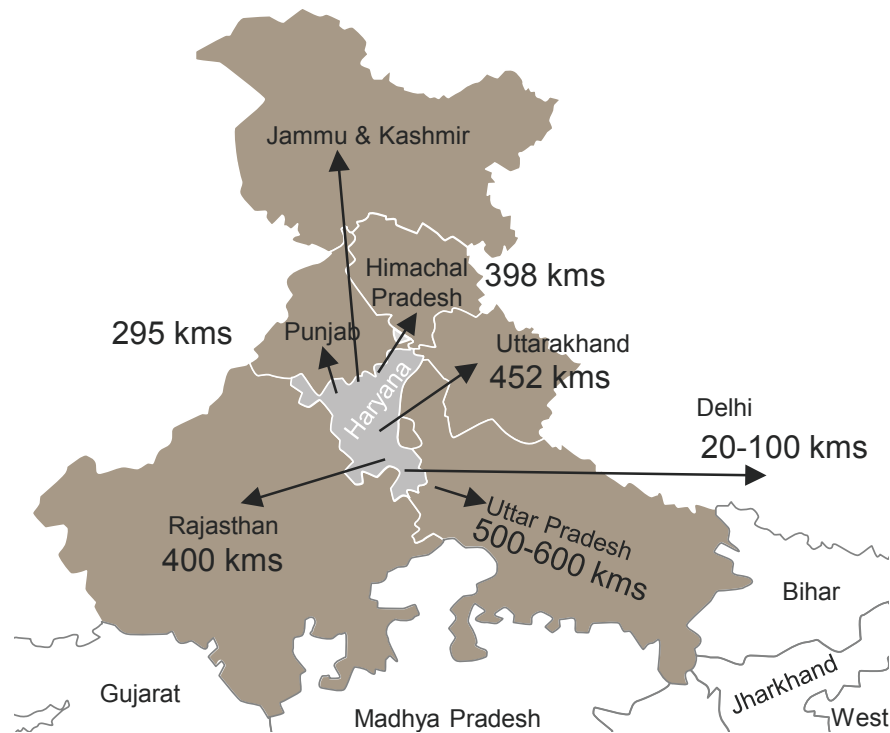
Consumer durable includes Air-conditioner, Refrigerator, Television and Washing machine

Both Haryana and Ghaziabad are strategically located vis-a-vis major consumption markets within NCR. However, Ghaziabad faces constraints in land availability as well as poor infrastructure connectivity, low per-capita consumption, etc, making it the preferred location for a consolidated warehouse hub. The centre of gravity model also pegs Haryana as the ideal location for warehousing within NCR.

Inherent advantages means Haryana primed for warehouse consolidation

Haryana's central location in NCR, land availability, cheaper land costs and status as a key consumption market make it a preferred location for warehousing consolidation

Haryana preferred as consolidated warehouse hub within NCR



Source: Industry, CRISIL Research

Why Ghaziabad loses out

- No land availability in Ghaziabad near highway close to Delhi. NH71 near Uttar Pradesh is congested due to city traffic and residential area
- Land is available in interior areas but connectivity is poor
- Significant time for land conversion to warehousing (about 6-9 months)
- Low per capita consumption compared with other locations in NCR

Factors aiding Haryana

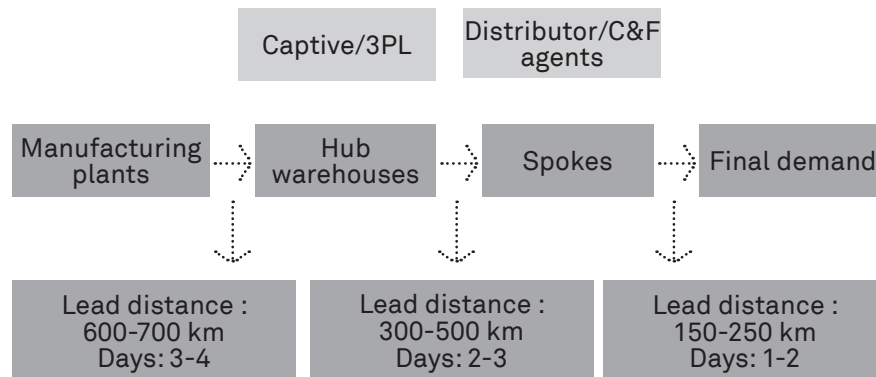
- Highest consumption market within NCR
- Centrally located vis-à-vis key consumption markets - Punjab and Delhi
- Relatively cheaper land rates compared to Ghaziabad
- Availability of land
- Part of Golden Quadrilateral which provides better connectivity to other regions
- Can cater to consumption markets: Some parts of Rajasthan, Himachal Pradesh and Uttarakhand are within a range of 350-450 km from Haryana

Why Delhi loses out

- As per NCR Master Plan – 2031, Delhi cannot have warehouses in commercial zone
- Urbanisation has pushed up land prices, making it unfeasible for warehousing

Though Punjab is one of the key consumer durables and FMCG consumption markets within NCR, it is not a feasible location for the setting up of a consolidated warehouse as it is at a distance of ~395 km from Delhi and ~300 km from Haryana. Himachal Pradesh, Uttarakhand, and Jammu and Kashmir will also not be preferred as consolidated warehouse hubs on account of their not being major consumption markets.

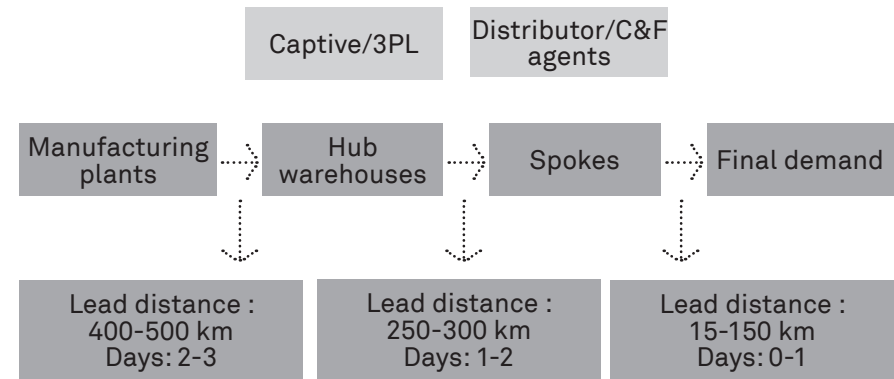
Consumer durables supply chain



Source: Industry, CRISIL Research

When comparing consumer durables against the FMCG sector, CRISIL Research believes the former has greater scope for warehouse consolidation as TAT is ~48 hours in the last leg of the supply chain. This gives players greater leeway to service demand from a consolidated hub and rules out the need to set up warehouses in each state within NCR. In this case, even if spoke warehouses / distributors are located 450-600 km from hub warehouses, the TAT can be met.

FMCG supply chain



Source: Industry, CRISIL Research

For the FMCG industry, however, though warehouse consolidation will happen in the NCR, the scale will be smaller on account of the low TAT of ~24 hours from spoke to retailer, high product substitutability, and smaller requirements by distributors/ retailers. Given the shorter TAT, along with Haryana, another warehouse hub will be needed in the NCR to meet demand.

Overview on warehousing hubs in NCR

Haryana cluster



For the Haryana cluster, demand mainly comes from manufacturing industries such as auto and auto-ancillaries and end-user industries such as consumer durables, FMCG, pharmaceuticals, and e-commerce. That's because New Delhi, a major consumption centre, is nearby.

Parameters

Land rates Rs **30-40** million per acre

Lease rentals Rs **12-19** per sq ft

Key industries FMCG, auto and auto components, consumer durables, apparels and fashions and healthcare

Proximity to airport

Indira Gandhi International Airport 10-20 km away

Regulations

As per the NCR Master Plan – 2031, Noida along with Ghaziabad, Faridabad, Gurugram, Bahadurgarh, and Kundli can be used for warehousing under commercial zone

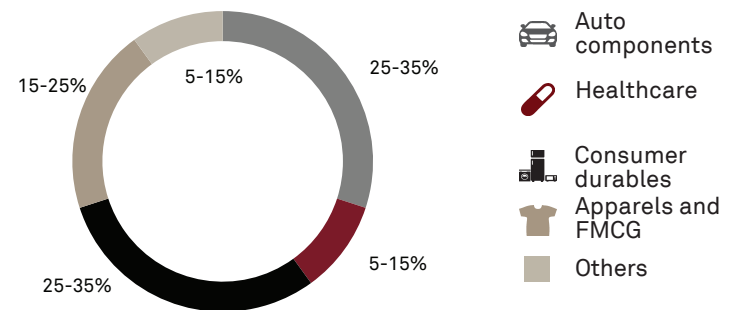
Warehouse infrastructure

Pre-engineered building (PEB) structures ~24 feet in height and basic infrastructure such as power back-up, ample parking space, fire-fighting equipment, and insulation

Size of warehouse

Large-sized warehouses of 50,000-250,000 sq ft each, as these are located in the interiors of Haryana

Sectorwise warehouse demand



Source: Industry, CRISIL Research

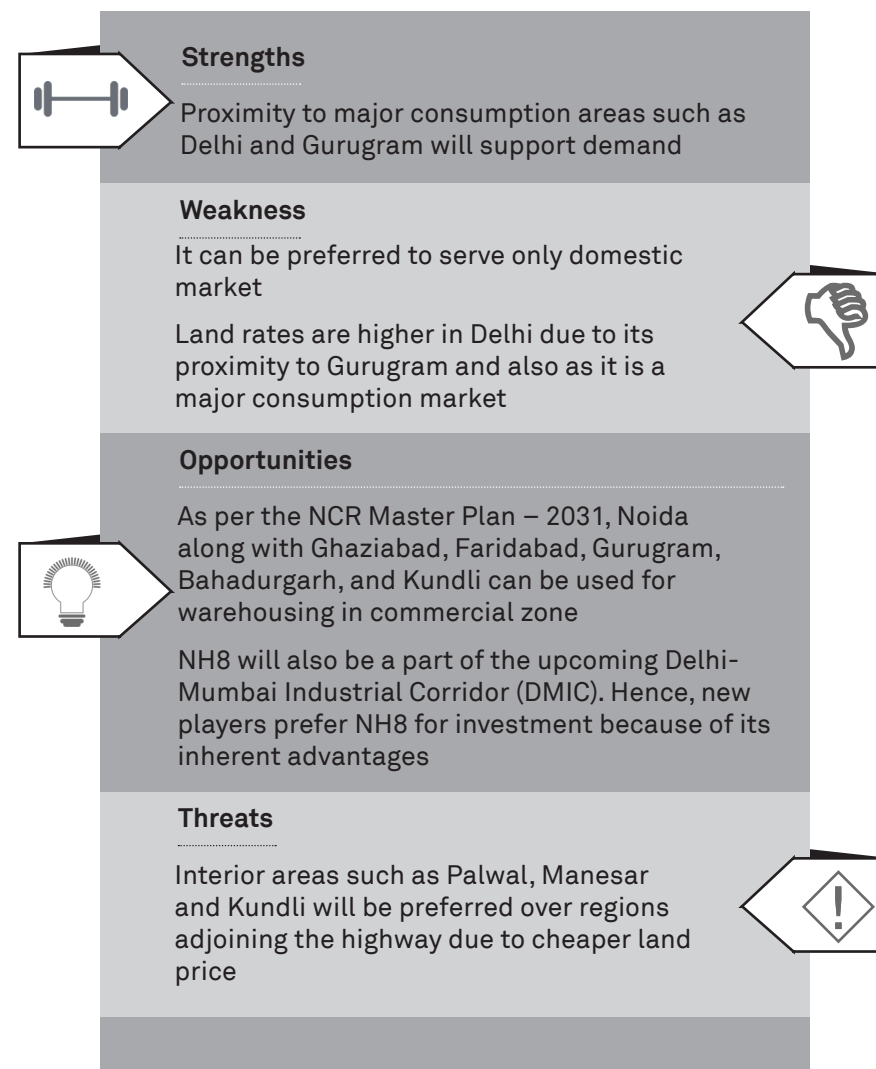
Note: As of 2016-17 in volume terms
Sectors include e-commerce demand

Improving road infrastructure will support demand in Haryana

The warehousing cluster in Haryana can be further divided into two sub-markets based on access to two major highways: NH8 and NH2.

- NH8 is a six-lane national highway starting from Delhi and passing through highly industrialised regions – Gurugram, Jaipur, Ahmedabad, Vadodara, Surat, and Vapi. At the end, this road connects to Mumbai and the JNPT through the NH4. As NH8 is part of the Delhi-Mumbai Industrial Corridor, road connectivity will improve.
- NH2 connects Delhi and Faridabad to central and eastern India. Moreover, the recently inaugurated expressway between Manesar and Palwal, which is part of the Kundli-Manesar-Palwal (KMP) Expressway, has reduced travel time between NH2 and NH8 by almost half.

SWOT analysis for Haryana



Ghaziabad cluster



Warehousing demand in Ghaziabad is led by the manufacturing industry, largely auto and auto-ancillaries, and food processing industries.

Parameters

Land rates Rs 30-40 million per acre

Lease rentals Rs 14-20 per sq ft

Key industries FMCG, auto components and consumer durables and pharmaceuticals

Proximity to airport

Indira Gandhi International Airport 40-50 km away

Regulations

As per the NCR Master Plan –2031, Ghaziabad can be used for warehousing under the commercial zone

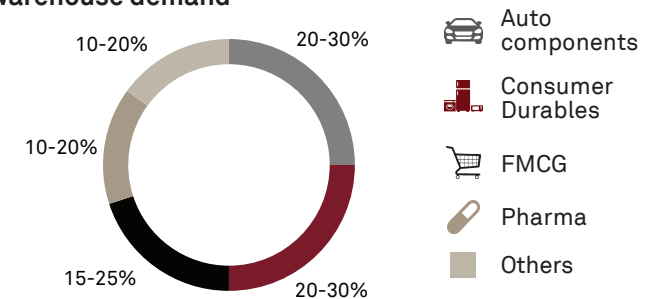
Warehouse infrastructure

The warehouses at the beginning of the Ghaziabad–Dadri stretch on NH 91 are primarily old structures, largely RCC with vertical height of only 14-16 sq ft. In contrast, newly constructed warehouses on Manikpur, Pilkhuwa-Hapur Road, and Meerut Road (NH58) are predominantly PEB with height of 22-24 sq ft. Also, flooring is chemical-hydrated to bear the weight of 5 metric tonne per sq m

Size of warehouse

Area of PEB structures generally ranges from 50,000 to 500,000 sq ft.

Sectorwise warehouse demand



Source: Industry, CRISIL Research
Note: As of 2016-17 in volume terms
Sectors include e-commerce demand

Organised players such as CMA CGM Logistics Park, DTDC Couriers, Om Logistics, VRL, Nitco Logistics, and KD Supply Chain Solutions have a presence in Ghaziabad.

Poor road infrastructure connectivity inhibits consolidation in Ghaziabad

NH91: Ghaziabad-Dadri belt

The NH91 Ghaziabad–Dadri belt has poor road infrastructure. Also, it is an old industrial warehousing area and a residential development. Interior road connectivity is also poor in Ghaziabad. However, with the upcoming eastern dedicated freight corridor (DFC), alignment at Dadri will provide better connectivity.

SWOT analysis for Ghaziabad

Strengths

- Proximity to consumption areas will support demand
- Availability of skilled manpower benefits the location

Weakness

- It can be preferred to serve only the domestic market
- Further, the quality of roads is also poor, which impacts regular cargo movement, especially in the NH-91 Ghaziabad–Dadri belt
- As the Ghaziabad cluster is located near the city, development of a large warehouse is difficult

Opportunities

- As per the NCR Master Plan – 2031, Noida, along with Ghaziabad, Faridabad, Gurugram, Bahadurgarh, and Kundli can be used for warehousing under commercial zone
- Connects to various ports in eastern India; the industrial belt of the Eastern Eastern DFC will open up opportunities

Threats

- Presence of both residential and industrial activity has impacted traffic movement in all the three belts
- Due to stringent land laws, conversion of land use from agriculture to industrial takes much longer compared with the NH-8 cluster in Haryana. However, if the land is meant for commercial use, it can be easily used for warehousing

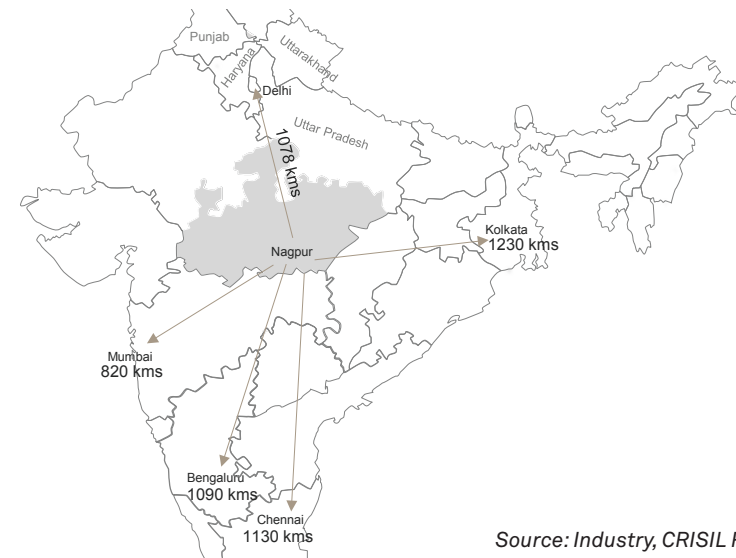
3 Nagpur unlikely to be a location of choice



A CRISIL Research study on the supply chain for the consumer durables and FMCG sector shows Nagpur is unlikely to emerge as major warehouse hub in the near term for consumer durables and FMCG due to GST, because currently it is neither a major consumption market nor a major manufacturing hub. Moreover, it is at a considerable distance from major consumption markets of India such as Mumbai, Delhi (NCR), Bengaluru, Chennai, and Kolkata, and hence cannot serve them.

However, Nagpur may be preferred by a few FMCG companies to serve parts of Madhya Pradesh such as Jabalpur and some parts of Telangana, given the low TAT of 24 hours.

Despite being in central India, Nagpur is more than 800 km from major consumption markets



Source: Industry, CRISIL Research

Our study indicates that both consumer durables and FMCG players may not prefer Nagpur as a warehousing hub in the near term due to the following factors:

Not a major consumption market or manufacturing centre for consumer durables

A pan-India consumer durables player typically has 2-3 manufacturing / assembly plants in India, 4-5 regional hub warehouses, and 21-25 spoke/ state warehouses (most of them tax warehouses).

Most of the warehousing demand for consumer durables emanates from the North as it is the largest consumption market. NCR is the key consumption market for consumer durables within India - typically Haryana, Delhi and Punjab. However, as most of the consumer durables components are imported, warehousing demand is in the West and South. Nagpur is not preferred as it is distant from these main consumption/manufacturing centres.

Low TAT for FMCG

FMCG manufacturing units are scattered across India owing to:

- Presence of FMCG corridors which provide tax benefits (such as north or north-eastern states), and
- Outsourcing to small manufacturers

A large FMCG player typically has 15-20 manufacturing plants in India. Consumption is pan-India and routed from hub warehouses to spoke warehouses situated in 250-300 km radius. On average, at least one warehouse exists in every state; metros would require more warehouses within the state as service TAT is low at 24 hours. But, Nagpur may be preferred by a few FMCG companies to serve parts of Madhya Pradesh such as Jabalpur and some parts of Telangana, given the low TAT of 24 hours.

If Nagpur attracts investments for manufacturing due to the government's move to make it a National Investment Manufacturing zone, it may become a warehousing hub over the long term.

Parameters

Land rates Rs **4-6** million per acre

Lease rentals

Rentals in interior regions near Wardha Rs 7-8 per sq ft; Rentals around MIHAN Rs 15-16 per sq ft

Key occupants

Retail, FMCG, e-commerce, auto-components, consumer electronics

Connectivity to port

Distance between Nhava Sheva Sea Port and inland container depot (ICD) in Nagpur is ~320 km

Connectivity to airport

Dr Babasaheb Ambedkar International Airport at Nagpur

Regulations

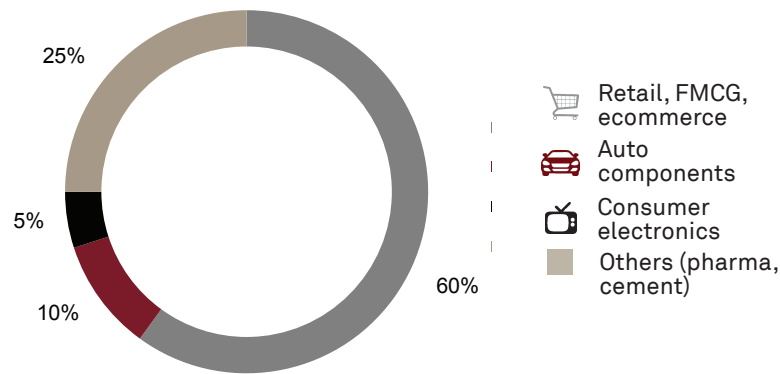
Warehousing segment is part of the commercial space which constitutes 3% of total land usage in Nagpur

Warehouse infrastructure Both RCC and PEB structures are present

Size of warehouse

High proportions of logistic park (1,00,000-3,00,000 sq ft)

Sectorwise warehouse demand



Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

Organised players such as DHL, Orange City Logistics, Future Supply Chain, VRL Logistics, etc., are present in Nagpur.

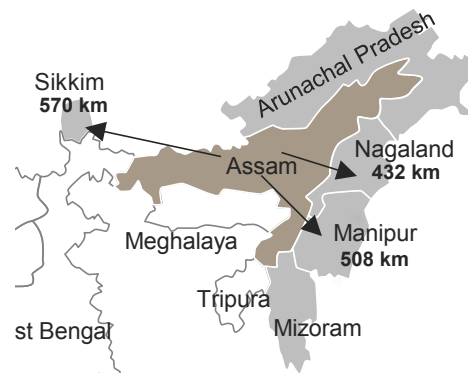
SWOT analysis for Nagpur

	<p>Strengths</p> <p>Cheaper land rates to develop warehouses and abundant land availability</p>	
	<p>Weakness</p> <p>It is neither a major manufacturing nor consumption hub</p> <p>It is located more than 800 km from major consumption hubs of India</p>	
	<p>Opportunities</p> <p>Government is providing infrastructure support such as proper road and rail connectivity with major consumption/ manufacturing locations</p> <p>Upcoming MIHAN and SEZ projects will provide support</p> <p>Development of Nagpur as a major manufacturing zone under various schemes will boost warehousing</p> <p>Defence industry is coming in Nagpur.</p>	
	<p>Threats</p> <p>Labour issues act as inhibitors</p>	

4 Guwahati to bloom on tax gains



Guwahati is set to emerge as a major warehouse location for the FMCG sector due to the excise benefit extension to north-eastern states under the GST. However, factors such as high land costs of Rs 35-40 million per acre and narrow roads within Guwahati resulting in traffic congestion will act as deterrents.



Sikkim not preferred as warehouse hub as:

- Sikkim is not close to other north-eastern states – about ~600-1,200 km away
- No major FMCG manufacturing plants in Sikkim
- Sikkim is prone to natural disasters such as landslides

Guwahati preferred as warehouse hub due to:

- Centre of major consumption markets in northeast: Meghalaya, Sikkim and Mizoram
- Distances from Guwahati to other north-eastern states are within 550 km
- North India can be catered to by Guwahati
- Major manufacturing hub for FMCG companies such as HUL, Marico, and Dabur
- Exports to get boost once Mekong India corridor (India-Myanmar-Thailand trilateral highway) becomes functional – as it passes by Guwahati. Proximity to Bangladesh and Bhutan would benefit exports.

Meghalaya/Mizoram not preferred as warehouse hub as:

- Mizoram and Meghalaya are not in the centre of the consumption market in north-eastern states
- Land acquisition is a major problem in Meghalaya and Mizoram

The government announced the North-East Industrial and Investment Promotion Policy (NEIIPP), 2007, w.e.f. 01.04.2007 for 10 years to promote industrialisation in the region. As per the Department of Industrial Promotion Policy (DIPP), fresh registration of industrial units to claim benefits under NEIIPP, 2007 were suspended w.e.f. 01.12.2014 since committed liabilities under the package were far greater than the annual budget allocation. Subsequently, as per the revised notification in November 2016, the government resumed the registration process for new industrial units that commenced production on or after 01.12.2014 and till 31.03.2017 under NEIIPP, 2007. The units if registered till 31.03.2017 would receive excise benefits for an extended period up to 10 years till 31.03.2027.

This excise duty benefit extension under GST for 10 years till 31.03.2027 was applicable for north-eastern states. To avail of the excise duty benefit, large FMCG players have commenced investing in manufacturing facilities in the region.

Investment by FMCG players in manufacturing facilities

Name of players	Amount invested (Rs billion)	Products manufactured
Hindustan Unilever Ltd	10	Personal care products
Dabur	2.5	Personal care, Home Health care and products
Emami	3	Personal care and Health care products
Jyothy labs	0.3	Personal care and Home care

Source: Company presentations

Snapshot of Guwahati

Guwahati would be preferred as a warehousing hub in north-east India by FMCG players as it is centrally located, equidistant from key consumption markets, and most FMCG units have expanded manufacturing plants post extension of tax benefits. In the long run, even export demand can be catered to once the Mekong-India Corridor is developed, which would link Indian markets with China, Thailand and Bangladesh.

Parameters

Land rates Rs **25-30** million per acre for land on NH 27
 Rs **15-20** million per acre for land up to 10 km from NH27
 Rs **5-6** million per acre for land up to 25 km from Guwahati (Amingaon and Byhatta)

Lease rentals Highway – Rs **18-23** per sq ft
 20-25 km from Guwahati – Rs **12-18** per sq ft

Key occupants Tea, FMCG, consumer electronics, pharmaceuticals

Proximity to airport 20-25 km

Proximity to port 993 km

regulations

Warehousing is allowed under the commercial zone, which makes for 5.96% of the total developed area. The area allotted to warehousing is 1.25 hectares which is 2-3% of the total area under the commercial zone

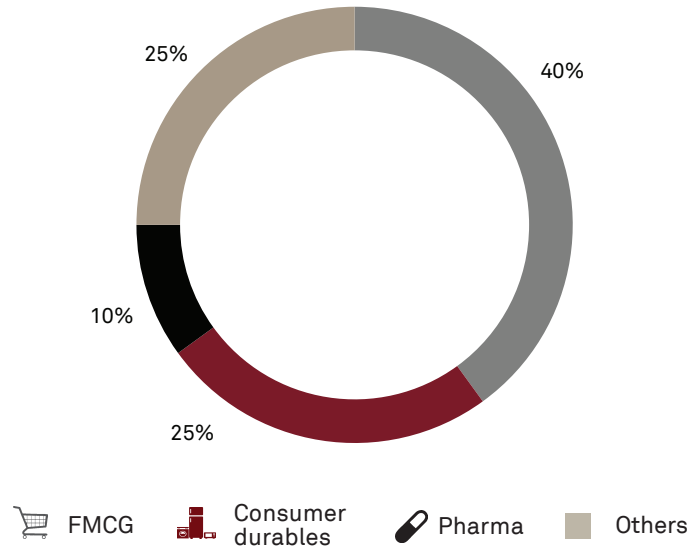
Warehouse infrastructure

Both old RCC structures and PEB structures are present

Size of warehouse

Small and medium-size warehouses available, ranging from 20,000-50,000 sq ft

Sectorwise warehouse demand



Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

Warehousing demand in Guwahati emanates mainly from industries such as FMCG, consumer durables, and pharmaceuticals. Tea (included in others) and FMCG together constitute close to 50% of warehouse demand. Organised players such as DHL, Gati, Flipkart, Central Warehouse, ProConnect, Jai Jagdambey, Future Supply Chains, Om Logistics, Zaman, Delhivery.com, GS Warehouse, ATC Warehouse and Agni Warehouse are present in Guwahati.

SWOT analysis for Guwahati

	<p>Strengths</p> <ul style="list-style-type: none"> Extension of manufacturing benefits to north-eastern states has fuelled a rise in manufacturing base Advantage of being in the centre of north-eastern states to help serve consumption demand
	<p>Weakness</p> <ul style="list-style-type: none"> Narrow roads and traffic congestion key impediment towards consolidation
	<p>Opportunities</p> <ul style="list-style-type: none"> Guwahati emerging as a manufacturing hub has boosted demand for warehousing The Mekong-India corridor, once developed, would link Indian markets with China, Thailand, and Bangladesh
	<p>Threats</p> <ul style="list-style-type: none"> High land cost a major hinderance

5 Mumbai, Bengaluru, Hyderabad and Kolkata will continue to flourish



Warehousing-intensive sectors such as consumer durables, pharmaceuticals, auto components, and e-commerce have their manufacturing/regional hubs across major consumption markets, viz., Northern Capital Region (NCR), Mumbai Metropolitan Region (MMR), Hyderabad, Bengaluru, and Kolkata. Bolstering infrastructure initiatives such as industrial corridors, dedicated freight corridors, etc. will support demand in these locations. We expect GST to herald maximum consolidation in NCR.

Mumbai: Bhiwandi and Panvel

Bhiwandi to remain a preferred location due to inherent advantages

Bhiwandi will remain a major warehousing hub due to its proximity to Mumbai, and also offers cheaper land value and lease rentals compared to other locations. Panvel will be preferred as a hub for imported components of consumer durables as it is in proximity to JNPT port. However, land parcels in Panvel are expensive due to its proximity to the port, residential penetration, and the upcoming Navi Mumbai airport.

Parameters

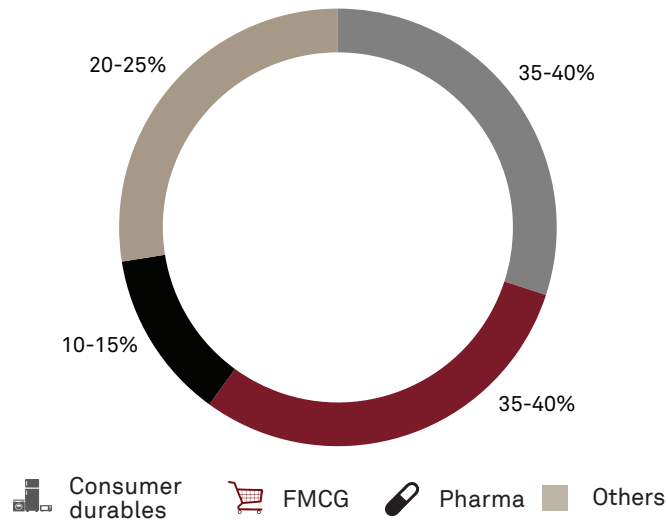
Particulars	Bhiwandi	Panvel
Land rates	Rs 10-16 million per acre	Rs 25-40 million per acre
Lease rentals	Old Bhiwandi Rs 10-16 per sq ft New Bhiwandi Rs 16-20 per sq ft	Rs 20-25 per sq ft
Key industries	Consumer durables, FMCG, engineering, etc.	Consumer electronics, automotive components, etc.
Proximity to JNPT port Proximity to Mumbai international airport	50-60 km 40-50 km	15-25 km 40-50 km
Regulations	Government re-classified land under transport park and logistics hub in March 2015 for New Bhiwandi	SEZ Act, 2005 encourages development of free trade warehousing zones (FTWZs) close to seaports, airports, or dry ports so as to offer easy access by rail and road. The objective of FTWZs is to create trade-related infrastructure for export and import of goods and services in a convertible foreign currency
Warehouse infrastructure	Large size warehouses of 50,000-200,000 sq ft, located on Mumbai-Nashik highway	Large size warehouses of 50,000-200,000 sq ft. Port traffic largely for Maharashtra, Madhya Pradesh, Gujarat and northern India are routed via Panvel because of its proximity to JNPT port
Size of warehouses	PEB structures with chemical-hydrated flooring; height of 9-12 m, forklifts, stacking arrangements, fire equipment system. RCC structures characterise old Bhiwandi	PEB structures with chemical-hydrated flooring, height of 8-9 m, forklifts, stacking arrangements, fire equipment systems, and sewage treatment plants. Imported cargo and cargo for exports are stored in containers

Source: Industry, CRISIL Research

Consumption sectors account for chunk of warehousing demand in Bhiwandi

Interactions with market participants indicate that consumption-oriented sectors account for a majority share of third-party warehousing demand in Bhiwandi due to the area’s proximity to Mumbai. The manufacturing sector comprises the remainder. Sectors such as consumer durables, FMCG, and e-commerce occupy a major share of consumption-led demand, while industries such as pharmaceuticals, chemicals, and engineering account for the manufacturing-led demand.

Sectorwise warehouse demand



Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

Growth in end-user industries such as consumer durables, FMCG, and e-commerce will propel growth in warehousing demand in Bhiwandi. The government’s initiative to develop industrial corridors such as Delhi-Mumbai Industrial Corridor (DMIC), Western Dedicated Freight Corridor (WDFC), and Bengaluru-Mumbai Industrial Corridor (BMIC) will provide additional impetus.

The DMIC project will have three seaports (two in Maharashtra and one in Gujarat) and six airports, in addition to connectivity with existing ports. In fiscal 2017, ~Rs 5 billion was spent on the project, with construction of trunk infrastructure at four nodes in Gujarat, Maharashtra, Madhya Pradesh, and Uttar Pradesh in progress. With GST implementation, players may consolidate their regional warehouses across the western region, and set up mother warehouses at Bhiwandi due to its proximity to Mumbai.

Mumbai-Nashik highway areas reclassified as a transport hub and logistics park zone

In March 2015, the Urban Development Department reclassified After being reclassified as a transport hub and logistics park zone in 2015, the New Bhiwandi areas along the Mumbai-Nashik highway has attracted the presence of several organised players such as Antariksh Logistics, Future Supply Chain, Rajlakshmi Logistics Park, Indian Logistics Group, and Renaissance Industrial Smart City.

SWOT analysis for Bhiwandi ¹

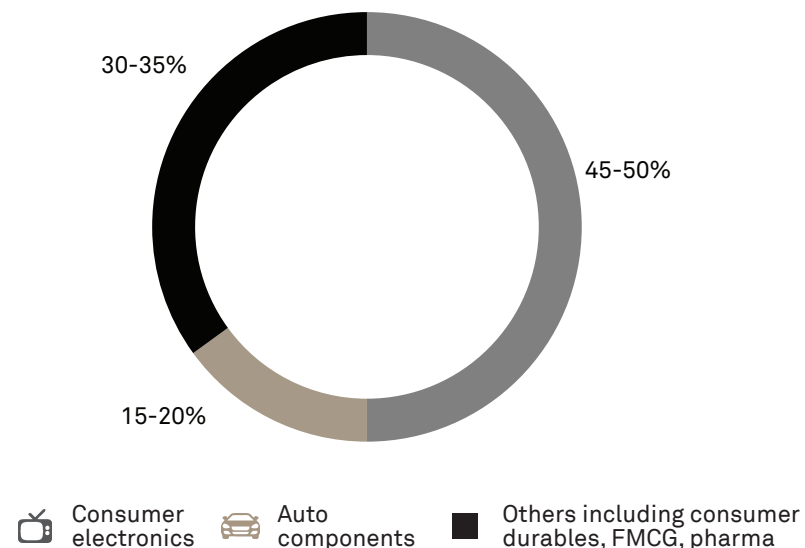
	<p>Strengths</p> <ul style="list-style-type: none"> Proximity to major consumption markets makes Bhiwandi a domestic hub Lease rentals are cheap in Bhiwandi as compared to Panvel
	<p>Weakness</p> <ul style="list-style-type: none"> Old Bhiwandi has unorganised small RCC warehouses with cheap rentals on offer Few players in Bhiwandi are levied warai charges at Rs 1 per sq ft
	<p>Opportunities</p> <ul style="list-style-type: none"> New players prefer to invest in new Bhiwandi because of re-classification of under the transport hub and logistics park zone
	<p>Threats</p> <ul style="list-style-type: none"> Acquiring clear land titles in Bhiwandi is a major issue. Demand is expected to shift from Old Bhiwandi on account of reclassification

¹ Warai charges are local charges in Bhiwandi for unloading goods from trucks and loading in galas, industrial parks, etc.

Warehousing demand in Panvel is export/import oriented

Warehousing demand in Panvel is largely export and import oriented, and manufacturing-led demand leads the share in warehousing space. Within this, consumer electronics, automotive components, and pharmaceuticals comprise the lion's share.

Sectorwise warehouse demand



Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

The Panvel warehousing cluster, which has proximity to the Mumbai-Goa highway and the Mumbai-Pune highway, largely handles cargo traffic for Maharashtra, Madhya Pradesh, Gujarat, Karnataka, as well as most of north India.

Medchal in Hyderabad will gain traction due to enhanced connectivity with national highway

Jeedimetla-Medchal is a major warehousing belt in Hyderabad, and Medchal has been gaining traction due to its connectivity to the national highway, low land prices and rapid urbanisation within the Nehru Outer Ring Road (ORR) boundaries.

Parameters

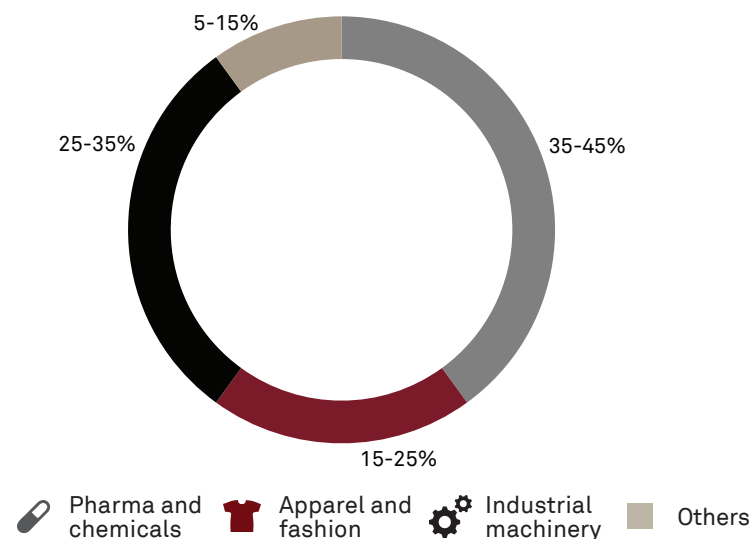
Particulars	Jeedimetla-Medchal
Warehouse	Old warehouses are largely reinforced concrete infrastructure structures (RCC) with height ranging from 14 to 16 ft, located in Jeedimetla. New infr structure comprises pre-engineered buildings (PEB) 22–24 ft tall, fitted with all amenities
Connectivity	The region has a network of good-quality roads, around 20–40 ft wide, in most stretches
Lease rentals	Rs 10-14 per sq ft
Land rates	Rs 25-40 million per acre
Size of warehouse	Large-sized warehouses of 50,000-100,000 sq ft in Medchal and relatively smaller warehouses of 10,000–65,000 sq ft in Jeedimetla
Proximity to ports and airport	Mumbai (700 km), Chennai (620 km), Hyderabad airport (40-50 km)
Commodities stored	Chemicals and pharma goods, apparel and FMCG

Pharma industry leads warehousing demand in Hyderabad

Interactions with market participants indicate that warehousing demand in clusters is driven by manufacturing industries such as pharmaceuticals and chemical industries due to proximity to the Jeedimetla industrial belt.

Consumption-led demand is from sectors such as e-commerce, fashion and apparels. Our interactions with market participants indicate that due to shorter delivery timelines of e-commerce companies, large warehouses are being set up in these regions.

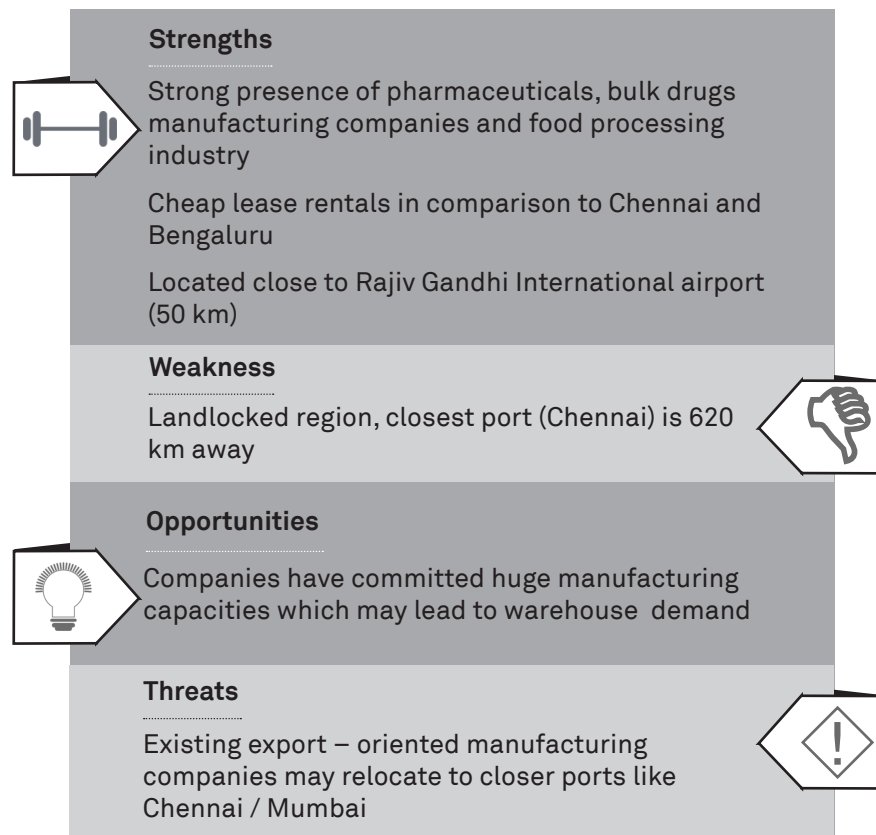
Sectorwise warehouse demand



Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

Organised players such as KVR Warehousing, VRL, Nitco Logistics, Future Supply Chain Solutions and Gati KWE have a presence in Hyderabad.

SWOT analysis for Hyderabad



Bengaluru - Hosur and Hoskote to gain traction due to removal of state taxation post GST

Bengaluru would continue as a major warehousing hub due to its close proximity to consumption markets, and the presence of various industrial estates such as Peenya, Bidadi, Narsapura and Jigani in the vicinity. Currently, the Neelamangala-Dabaspete belt is a major warehousing belt. However, other warehouse clusters such as Hosur and Hoskote in Bengaluru, which are closer to Chennai, would gain traction due to removal of state taxation post GST.

Source: CRISIL Research, Industry

Parameters

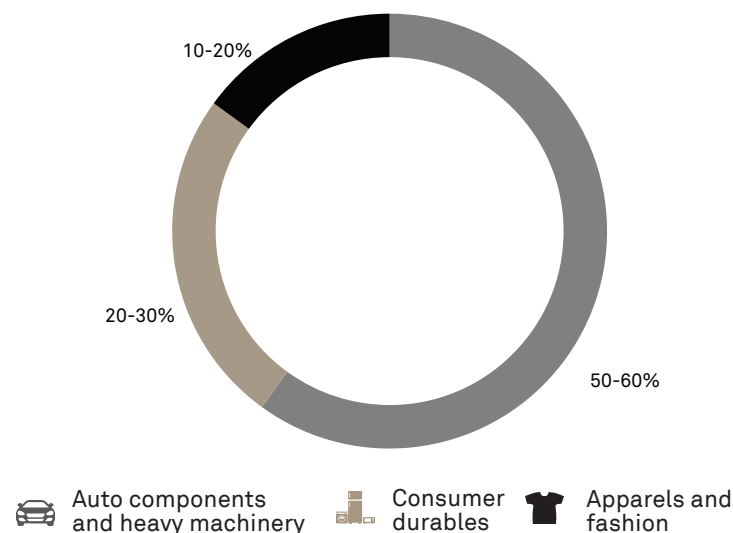
Particulars	Neelamangala-Dabaspete belt
Warehouse infrastructure	Pre-engineered building (PEB) structures with chemical hydrated flooring to bear weight, 8-9 metres in height. Equipped with forklifts, stacking arrangements, and fire equipment systems. Typically for Bengaluru region, ground coverage ratio is around 0.75.
Airport connectivity	The roads are of excellent quality for movement of cargo traffic. Also, the ecosystem for warehousing is developed in terms of services for trucks and cranes, roofing and garages. Kempegowda international airport, Bengaluru, is at a distance of 40-50 km from Neelamangala-Dabaspete belt.
Lease rentals	Rs 10-16 per sq ft
Land rates	Rs 15-30 million per acre
Size of warehouse	Large-sized warehouses of 50,000-5,00,000 sq ft. Also, the area can serve any destination in Bengaluru within a drive of two hours.
Port connectivity	Port traffic of Mumbai and Chennai can be easily routed through Bengaluru due to good connectivity of Mumbai-Bengaluru Highway, via NH4, which further routes to Chennai. Also, Kempegowda International Airport, Bengaluru, is within an hour's reach.
Regulations	As per zoning regulations, Bengaluru metropolitan region, Neelamangala-Dabaspete, Hoskote zone can be used for all purposes i.e., commercial, residential, industrial, etc. Warehouses can be built in commercial and industrial zones.

Source: Industry, CRISIL Research

Bengaluru's warehousing demand led by manufacturing and consumption-oriented sectors

Warehousing demand in the cluster emanates from automobiles, heavy engineering and pharmaceuticals due to the proximity of the industrial estates, which are located within a radius of 50-70 km. Consumption-led demand flows from sectors such as e-commerce, fashion and apparels, while the city also serves as a mother warehousing hub for the southern region.

Sectorwise warehouse demand



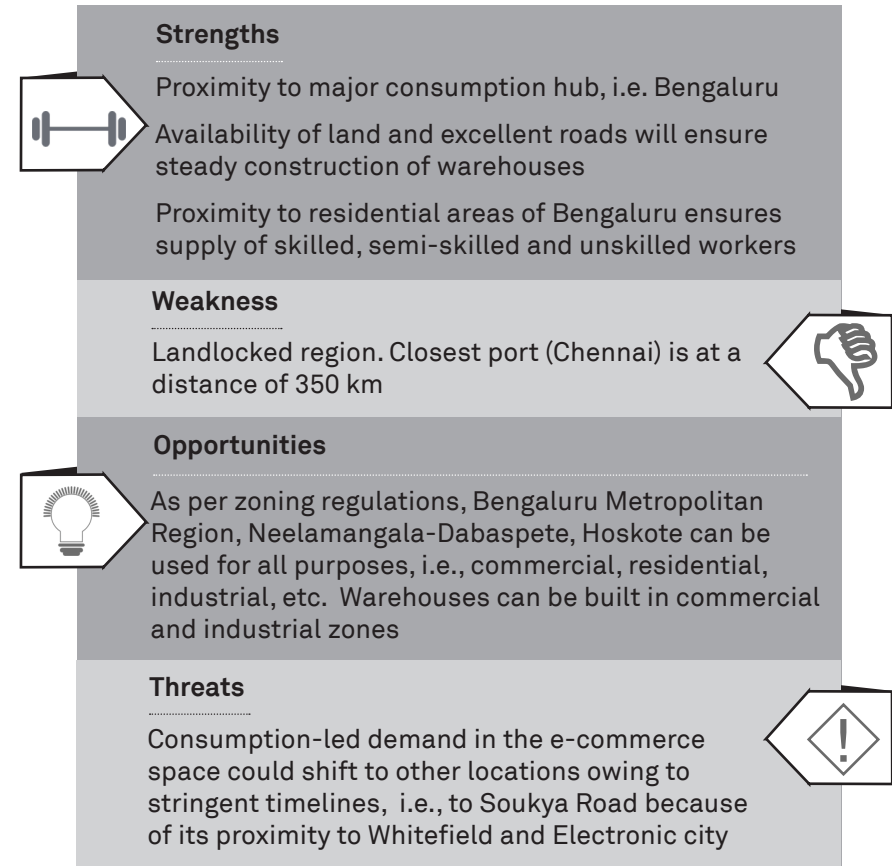
Source: Industry, CRISIL Research
 Note: As of 2016-17 in volume terms
 Sectors include e-commerce demand

Organised players – Indospace, Mahindra Logistics, TVS Logistics, Delhivery, Stellar Value Chain Solutions, etc. have a presence in Bengaluru.

Industrial corridor will support consolidation across the southern region

The government's initiative to develop industrial corridors such as the Bengaluru-Mumbai Industrial Corridor (BMIC) and Chennai Bengaluru Industrial Corridor (CBIC) will support the development of existing warehousing locations, and help create efficient logistics and infrastructure in the existing cluster. Also, our interactions with market participants suggest that Bengaluru will continue to develop as a mother warehousing hub for the southern region due to GST implementation.

SWOT analysis for Bengaluru



Source: CRISIL Research, Industry

Kolkata remains warehousing hub for north-east market

Kolkata serves as a consumer goods hub for north-eastern states. The city’s proximity to industrial areas in Dhulagori-Uluberia-Dankuni make it a key manufacturing warehousing location as well. Dankuni is also a part of the government’s Amritsar Kolkata Industrial Corridor (AKIC) and Eastern Dedicated Freight Corridor (EDFC). Hence, modern warehouses, largely pre-engineered block (PEB) structures, are expected to be built in this region.

Dankuni-Uluberia: Kolkata’s major warehousing belt

Dhulagori, Dankuni, Uluberia and locations around Old Delhi Road are popular warehouse hubs. The over 35 km stretch is ~20 km away from Kolkata city centre.

The warehouse hubs have come up along NH16 (Kolkata-Chennai) that runs along the east coast of India, thus providing connectivity to southern India.

Parameters

Particulars	Dankuni	Dhulagori – Uluberia
Warehouse infrastructure	Primarily steel framed and concrete structures, reinforced concrete structures	Most structures are new PEBs. Uluberia region has a relatively sparse network of roads compared to Dhulagori, which has good coverage from an eight-lined NH16 highway
Lease rentals	Rs 15-18 per sq ft	Rs 14-18 per sq ft
Land rates	Rs 20-22 million per acre	Rs 10-18 million per acre
Proximity to Kolkata airport	20-22 km	40-45 km
Proximity to Haldia port	110-115 km	80-90 km
Size of warehouse	A mix of small-to-medium-sized warehouses. High concentration of facilities less than 15,000 sq ft. Medium-sized facilities range from 25,000-80,000 sq ft	Bigger warehouse facilities ranging from 90,000-150,000 sq ft

PEB: Pre-engineered blocks

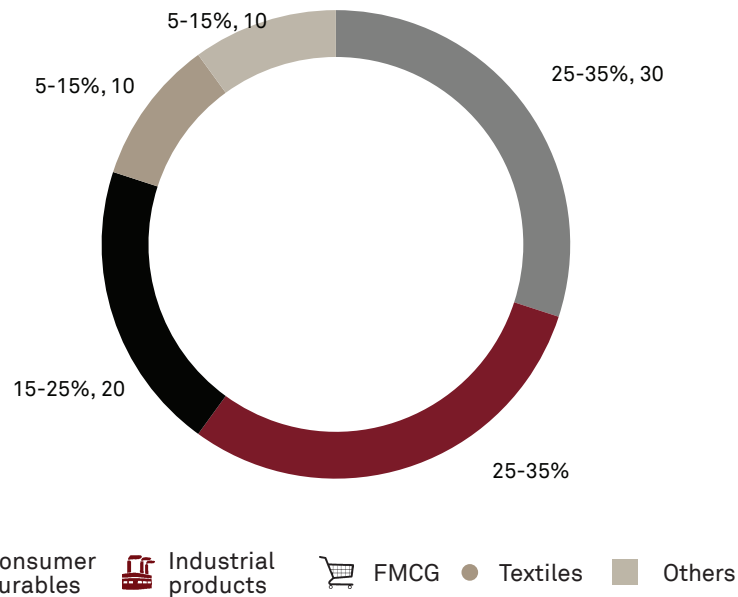
Source: CRISIL Research, Industry

Warehousing demand in Dhulagori-Uluberia in Kolkata led by manufacturing and consumption

Kolkata is strategically located, as it connects the north-eastern states to the mainland. Proximity to industrial areas in Dhulagori-Uluberia-Dakuni makes it a key manufacturing warehousing location. Also, the presence of Haldia port in the vicinity makes it possible for these regions to cater to demand from the import/export trade.

Demand for warehousing space in Dhulagori-Uluberia is likely to be manufacturing-led, owing to the presence of large FMCG companies such as ITC, PepsiCo, Jubilant Foodworks, etc, and also a mix of metal, cement and consumer durable companies such as Godrej, Ambuja Cement, etc. Additionally, export-oriented cargo is expected to be stored in the Uluberia region as it is well beyond city limits and closer (than Dhulagori) to Haldia port. Most of the top organised players' manufacturing facilities are located in the Dhulagori-Uluberia cluster, whereas warehouses have conventionally been in the Dankuni cluster.

Sectorwise warehouse demand

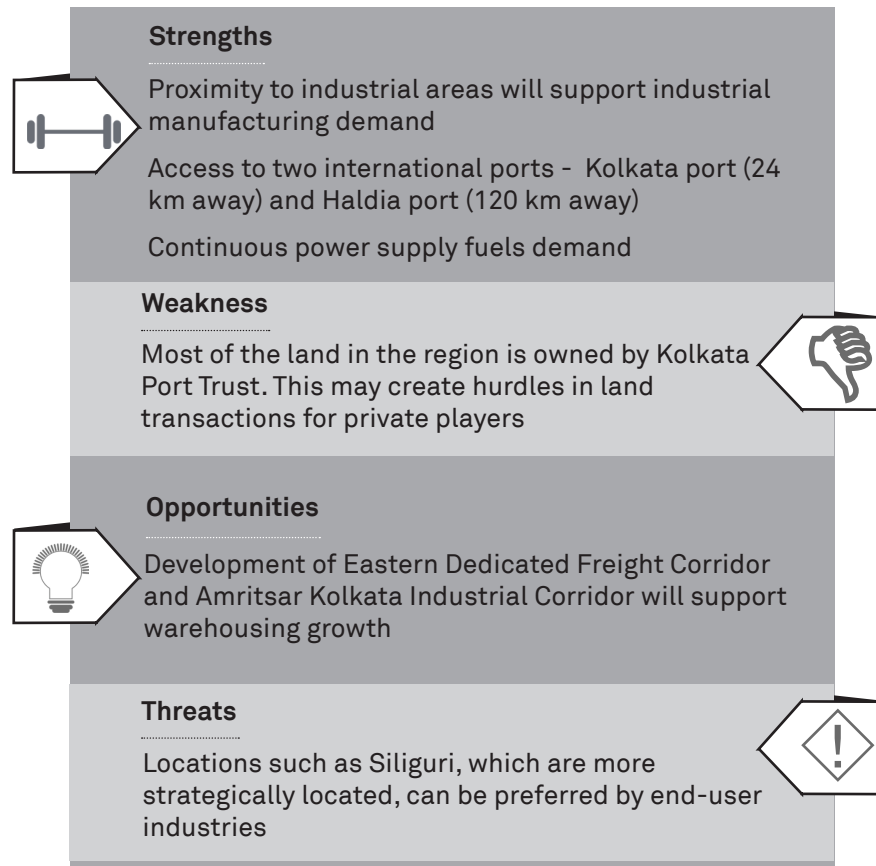


The Dankuni area largely witnesses consumption-led demand as it is closely located and well-connected to the city centre. Dankuni is also a part of the government's AKIC. Hence, this area is expected to witness industrial demand. The EDFC is also linked to Dankuni. Hence, modern warehouses, largely PEB structures, are expected to be built.

Another important factor driving growth will be consolidation of warehouses post GST implementation. Players will prefer to consolidate their small warehouses across the eastern region owing to removal of state borders.

Source: Industry, CRISIL Research
Note: As of 2016-17 in volume terms
Sectors include e-commerce demand

SWOT analysis for Kolkata



Source: CRISIL Research, Industry

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