ONDC
Open Network for Digital Commerce

Democratising digital commerce in India

An open network for inclusive, competitive marketplaces

Sub-Report on
Grocery

May 2023

This booklet is an excerpt from
the Grocery section of the report
'Democratising Digital Commerce in India'
and is based on joint research conducted
by ONDC and McKinsey & Company.
The complete report covers 11 sectors.
To access the full report, please use the
QR code provided below.

Grocery

Grocery accounts for 35-45 percent of India's consumer spending and is valued at approximately $400 billion.[1] India's online grocery penetration is 1 to 2 percent, substantially lagging behind other product categories such as electronics and fashion.[2] The landscape is experiencing a twin disruption, however, with the market becoming more organised on the one hand and more digitalised on the other.

ONDC can accelerate this momentum by digitally enabling local kiranas (small grocery shops) and putting one of the world's largest fragmented trade bases at the heart of India's digitalisation story.

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[1] Less affluent households spend ₹2,000 on monthly groceries, Livemint, November 1, 2022.
[2] Why this is India's decade, Morgan Stanley, October 2022.

The landscape

India's grocery sector, with 12 million stores, accounts for 35 to 45 percent[1] of consumer spending and plays a significant role in conveniently fulfilling the daily needs of the country's population. In fiscal year 2022, the Indian grocery sector totalled approximately $400 billion—a figure projected to grow at a CAGR of 6 percent over the coming years (Exhibit 1).

As multiple digital commerce platforms evolve from focusing on customer acquisition to growing transaction frequency, e-grocery has been gaining traction. It received a further boost in recent years with the pandemic forcing people to stay home. And the changing preferences of consumers seeking omnichannel experiences and instant delivery are driving the growth of e-grocery. A thriving supply and delivery ecosystem has emerged with multiple modes. Customers can choose one- to two-day warehouse-based delivery (dry and fresh products or purely staples-oriented plays). Or they can opt for quick
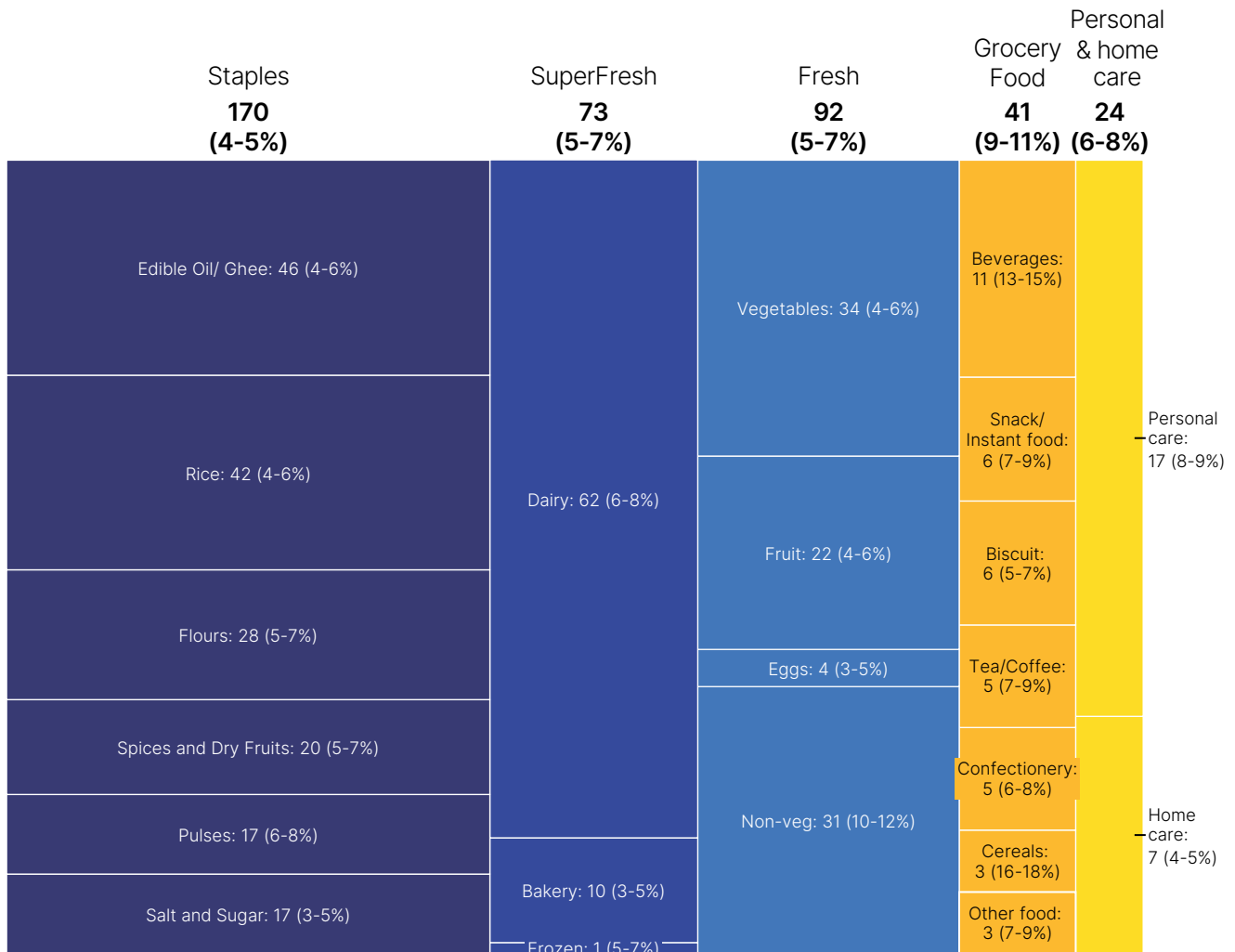
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[1]   Kantar Research.

Exhibit 1

India's grocery market totalled approximately $400 billion in fiscal year 2022 and comprises five major segments.

Split of grocery market across segments and sub-segments[1] (FY22)

xx: Spend pool FY22 ($ bn) (xx%): CAGR FY22-30

| Staples 170 (4-5%) | SuperFresh 73 (5-7%) | Fresh 92 (5-7%) | Grocery Food 41 (9-11%) | Personal & home care 24 (6-8%) |

Staples:
- Edible Oil/ Ghee: 46 (4-6%)
- Rice: 42 (4-6%)
- Flours: 28 (5-7%)
- Spices and Dry Fruits: 20 (5-7%)
- Pulses: 17 (6-8%)
- Salt and Sugar: 17 (3-5%)

SuperFresh:
- Dairy: 62 (6-8%)
- Bakery: 10 (3-5%)
- Frozen: 1 (5-7%)

Fresh:
- Vegetables: 34 (4-6%)
- Fruit: 22 (4-6%)
- Eggs: 4 (3-5%)
- Non-veg: 31 (10-12%)

Grocery Food:
- Beverages: 11 (13-15%)
- Snack/ Instant food: 6 (7-9%)
- Biscuit: 6 (5-7%)
- Tea/Coffee: 5 (7-9%)
- Confectionery: 5 (6-8%)
- Cereals: 3 (16-18%)
- Other food: 3 (7-9%)

Personal & home care:
- Personal care: 17 (8-9%)
- Home care: 7 (4-5%)

[1] General merchandise not included.

commerce delivery (within 1-2 hours) through players who have emerged either as extensions of online food delivery or stand-alone players operating from hyperlocal dark stores.
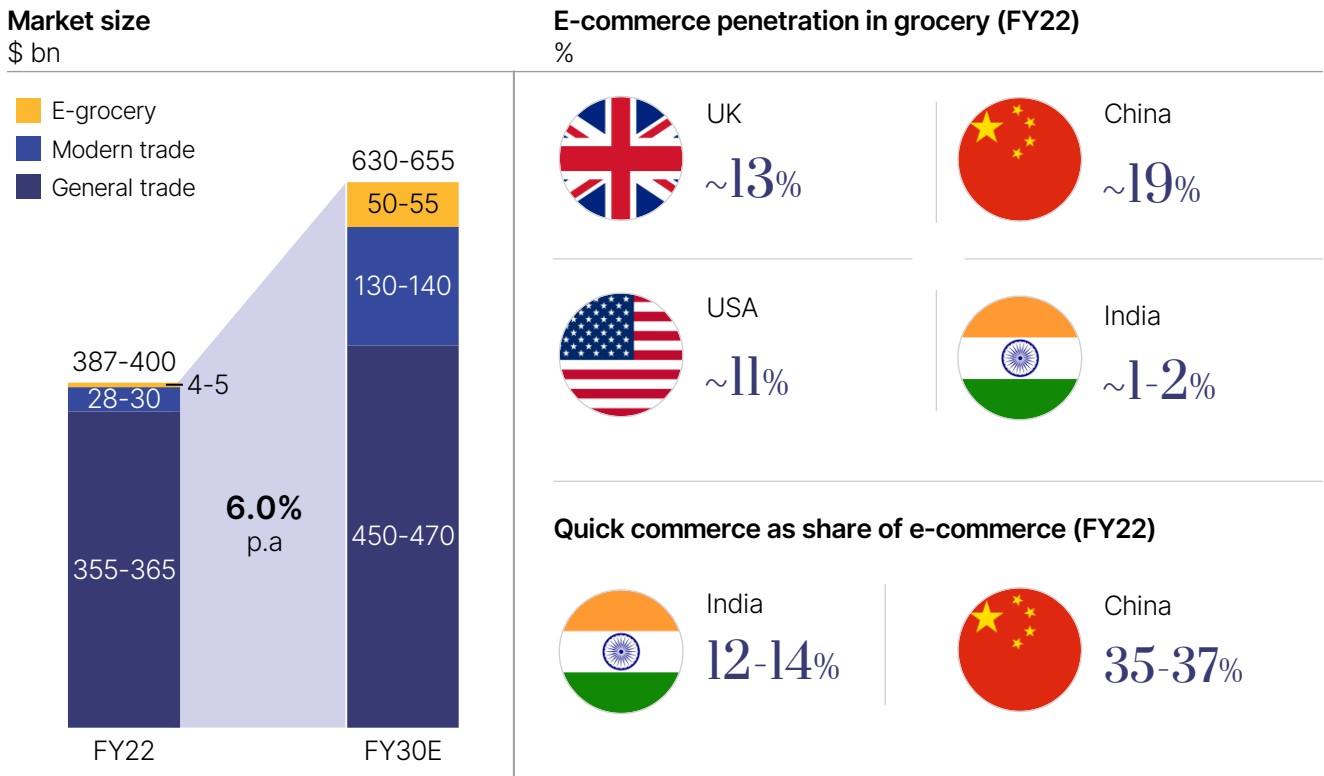
Despite this upward swing, the share of digital commerce in the Indian grocery industry remains low (Exhibit 2)—just 1-2 percent, compared with other global markets such as China (19 percent), the United States (11 percent), and the United Kingdom (13 percent). Digital penetration across segments within the grocery sector varies greatly: for example, e-grocery penetration rates for staples (0.5 to 1 percent) and super-fresh items (0.3 to 0.5 percent) are lower than for personal and home care products (2.5 and 3.0 percent respectively).

This limited penetration is unsurprising—India's 12 million kirana stores offer a convenience that is hard to match, along with a personalised shopping experience built on close, enduring customer relationships. Kirana stores are also unique in offering occasional credit for a month at a time.

Around 65 percent of grocery sales come from daily top-up and impulse purchases, whereas these purchases drive only 25 percent of e-grocery sales (Exhibit 3). This journey has not been digitalised beyond the top 20 to 30 cities in India, where quick commerce has taken market share away from e-commerce, highlighting the need to speedily fulfill grocery demand.

Exhibit 2

Penetration of e-grocery and hyperlocal is less than global peers; e-grocery expected to grow the fastest.

Market size
$ bn

- E-grocery
- Modern trade
- General trade

FY22: 387-400 (28-30, 4-5, 355-365)
FY30E: 630-655 (50-55, 130-140, 450-470)

6.0% p.a

E-commerce penetration in grocery (FY22)
%

UK ~13%
China ~19%
USA ~11%
India ~1-2%

Quick commerce as share of e-commerce (FY22)

India 12-14%
China 35-37%

Source: Morgan Stanley; Adobe; Grand View Research; Insider Intelligence; Kantar; Syndicated McKinsey research

Exhibit 3

Daily and urgent grocery trips account for about 65 percent of general trade vs. about 25 percent for online retail.

Shopping missions

Split of consumer basket

Fill in (monthly)

Stock up (weekly)

"Routine needs" — ~40%

Daily/top-up — "Need for today" — ~35%

Urgent (Including impulse purchases) — "Need it now" — ~25%

Type of channel

General trade
Kirana

Hypermarkets/ supermarkets

Online retail

General trade (Kirana)	Hypermarkets/ supermarkets	Online retail
~35%	~50%	~75%
~35%	~35%	~15%
~30%	~15%	~10%
~65%		~25%
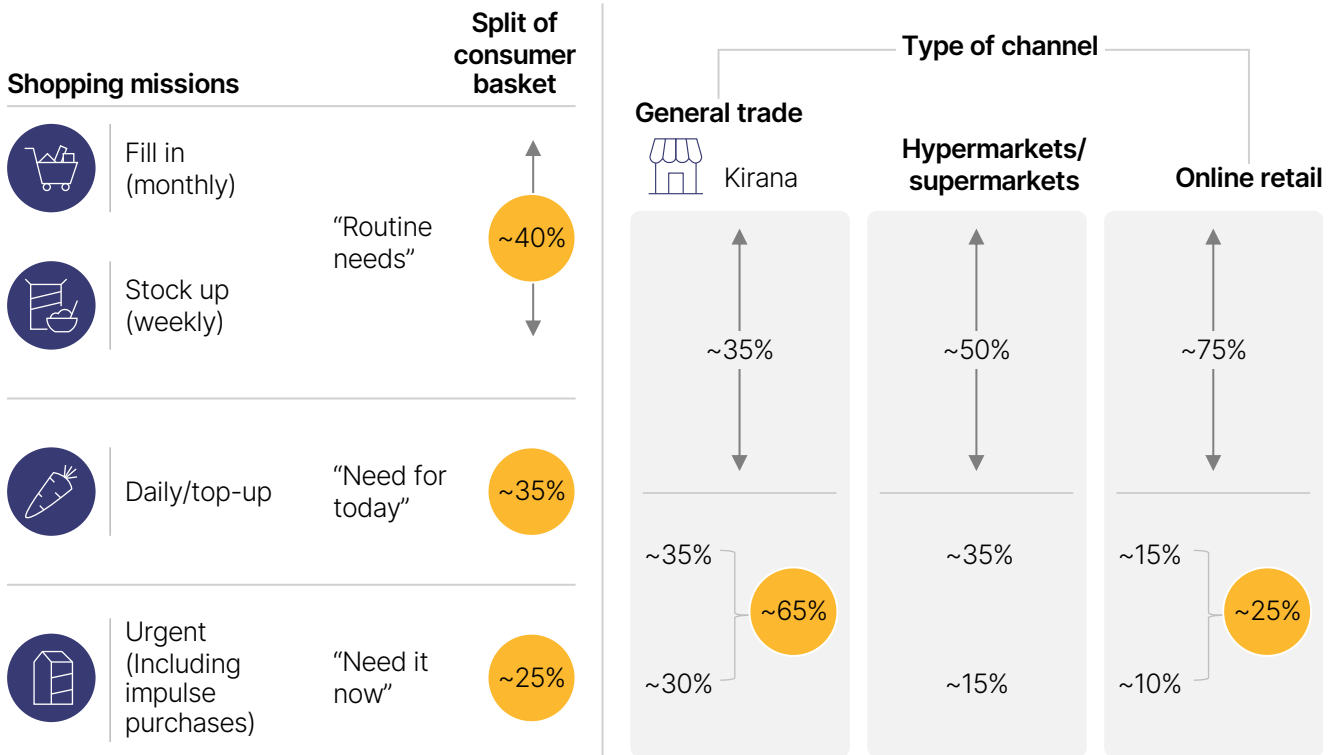
> It is important to acknowledge that while modern retail formats are here to stay and grow, kirana stores are the fabric of the Indian grocery ecosystem. Even during the challenging times of Covid, the neighborhood kiranas showed their resilience and agility in modifying their assortment, managing the broken supply chains, and continuing to serve the customers. ONDC holds the promise to transform India's e-commerce sector by creating an opportunity for millions of kiranas to participate in the digital economy. As a company that counts millions of small stores as its partners, HUL is committed to supporting ONDC and helping it reach its full potential. We believe that ONDC will foster innovation, collaboration, and inclusion in India's digital commerce ecosystem.
>
> — **Kedar Lele**
> Executive Director – Customer Development, Hindustan Unilever Ltd.

Barriers to digital commerce and potential solutions from ONDC.

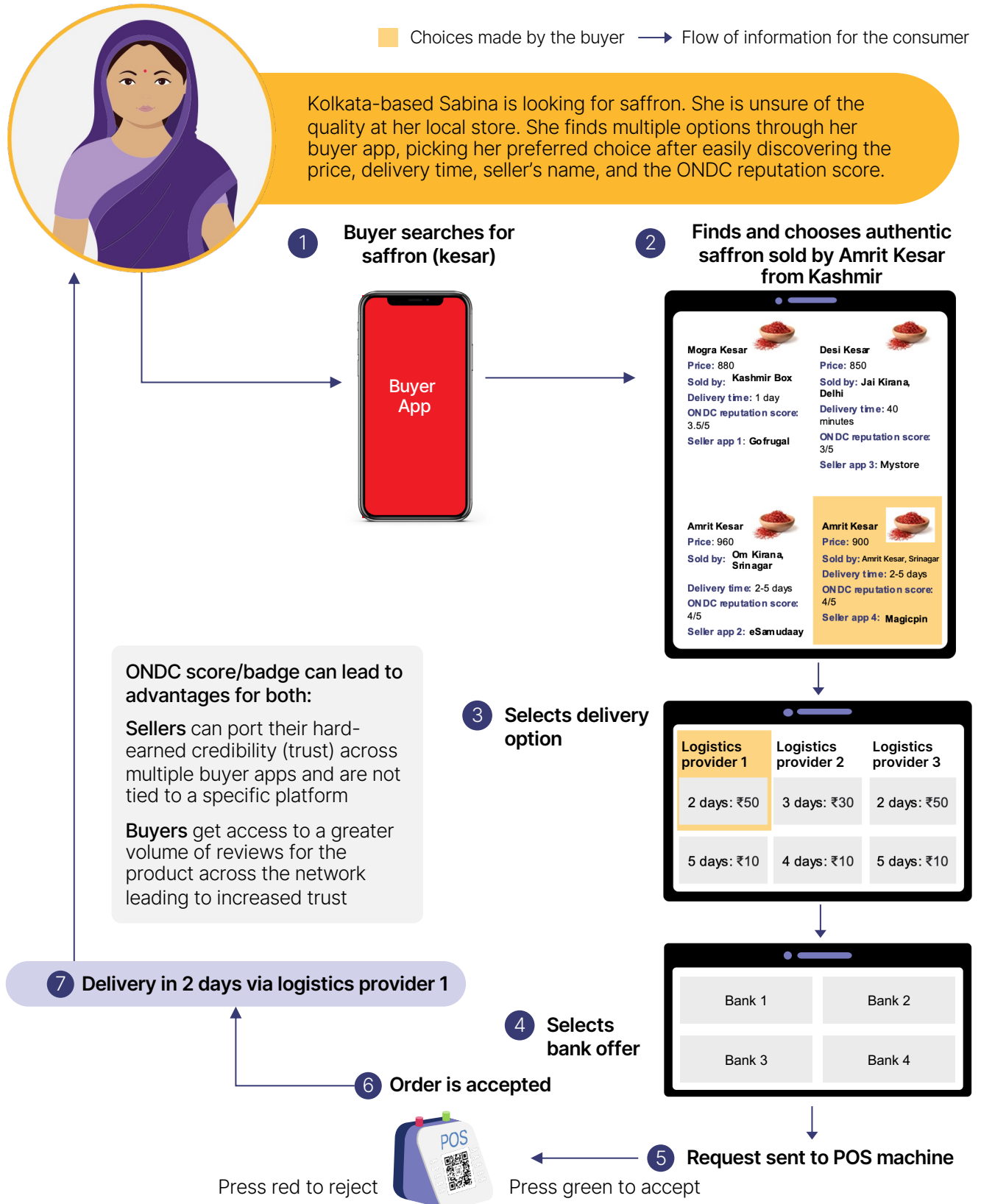|	**Barriers to digital commerce**	**Potential use-cases**
Company (Brand)	• **CPG companies are managing a fast-evolving channel mix** with a shift towards e-commerce/ Modern trade. • **Modern retail has a higher cost to serve** versus General trade, putting pressure on profitability. • Large CPG players have had few D2C brands due to **high digital acquisition costs.**	**Accelerate D2C brand build to expand the reach** • Ability to offer a large assortment of long-tail SKUs beyond the kirana, including premium SKUs and D2C brands • Boost assortment and availability at a local level, especially in tier 3+; micro market activation • D2C access to building brands that serve niches
Distributors and Wholesalers	• Compression of growth in general trade and increased costs are putting **distributor's scale and profit under stress.**	**Evolution of eB2B/eWS to lower procurement costs** • Enable kiranas to source from a wider distribution network at a lower cost • Anytime ordering, next-day delivery and endless aisle enable convenience and a wider basket **Access to credit and insurance products** • Flow-based financing access to enable increased stock availability
Kiranas	• Increased operating costs and lower growth have caused a **10-15% decline in profitability** among urban kiranas.	**Hyperlocal service by local kirana beyond top cities** • The largest **grocery assortment stores can now be connected to consumers hyper-locally** • **Demand for the kirana could expand** on the back of hyperlocal area **Access to credit to enable a wider assortment** • **Lost sales reduction** by stocking additional inventory due to **working capital finance**
Consumers	• **Inefficiencies in general trade** could lead to unmet demand, especially for premium and new category of products. • **The limited reach of online grocery in Tier 2+ cities** where 70-80% of spending happens, due to unfavourable unit economics.	**Access to a wider product assortment and enhanced convenience** with hyperlocal grocery **Access to financing options** • Increased ability to drive up cart value and purchase high-value products (e.g., skin care)

The network can enable customers to purchase choice products from a seller located anywhere in the country (Exhibit 4).

Exhibit 4

New possibilities: ONDC could enable a saffron brand based in Kashmir to broadcast its reputation score across multiple buyer apps to appeal to a wider audience.

Illustrative

Choices made by the buyer → Flow of information for the consumer

Kolkata-based Sabina is looking for saffron. She is unsure of the quality at her local store. She finds multiple options through her buyer app, picking her preferred choice after easily discovering the price, delivery time, seller's name, and the ONDC reputation score.

1 Buyer searches for saffron (kesar)

Buyer App

2 Finds and chooses authentic saffron sold by Amrit Kesar from Kashmir

Mogra Kesar
Price: 880
Sold by: Kashmir Box
Delivery time: 1 day
ONDC reputation score: 3.5/5
Seller app 1: Gofrugal

Desi Kesar
Price: 850
Sold by: Jai Kirana, Delhi
Delivery time: 40 minutes
ONDC reputation score: 3/5
Seller app 3: Mystore

Amrit Kesar
Price: 960
Sold by: Om Kirana, Srinagar
Delivery time: 2-5 days
ONDC reputation score: 4/5
Seller app 2: eSamudaay

Amrit Kesar
Price: 900
Sold by: Amrit Kesar, Srinagar
Delivery time: 2-5 days
ONDC reputation score: 4/5
Seller app 4: Magicpin

3 Selects delivery option

Logistics provider 1	Logistics provider 2	Logistics provider 3
2 days: ₹50	3 days: ₹30	2 days: ₹50
5 days: ₹10	4 days: ₹10	5 days: ₹10

ONDC score/badge can lead to advantages for both:

Sellers can port their hard-earned credibility (trust) across multiple buyer apps and are not tied to a specific platform

Buyers get access to a greater volume of reviews for the product across the network leading to increased trust

7 Delivery in 2 days via logistics provider 1

4 Selects bank offer

Bank 1	Bank 2
Bank 3	Bank 4

6 Order is accepted

5 Request sent to POS machine

POS

Press red to reject   Press green to accept

Potential impact on kiranas

Digitalisation and the open network could help midsize kiranas increase take-home profit by around 13 to 15 percent. This boost could be attributed primarily to a 20 to 25 percent growth in top-line revenue due to rising hyperlocal demand (Exhibit 5).

Exhibit 5

A connected midsize kirana could increase its take-home profit by 13 to 15 percent, propelled by top-line growth of 20 to 25 percent.

Illustrative monthly kirana P&L for offline business[1]		With ONDC, %[2]	Assumptions/rationale
GMV	100		
COGS	86-88	85-87	• **Decrease in inventory holding cost and reduced losses due to damages and expiry due to better visibility on the digitised inventory** could reduce COGS by 1-2%
Overheads	4-5	~1	• **Marginal cost** to serve an incremental order (e.g., electricity, etc.) **taken negligible**
Logistics	0	~1	• Assuming 4-5% as logistics cost with the customer bearing 3-4% as convenience fee and **~1% borne by the kirana using unutilised capacity of the existing manpower**
Marketing	0	~1.5	• Assuming **~1% for ATL marketing** (ad spend on the buyer app to earn clicks and impressions) and **~0.5% for BTL marketing** (e.g., leaflet distribution)
Write-offs	0	~0.5	• Given hyperlocal play, it is **assumed that kirana and customers can communicate informally** to have low write-offs (could be due to damages during transit, item expiry, etc.)
Labour	0	~1	• Additional manpower is required for inventory and grievance management for online orders; an adequate **inventory management system is critical for the success of the kirana**
NP fee	0	~4.5	• Assuming **1.5-2% and 2.5-3% as buyer app and seller app fees**[3] respectively • Buyer app **could earn ad revenue** from kirana and brands; hence the fee is relatively lower
EBITDA	7-9	~4.5-5	• **Lower margins in the online business, however, overall take-home goes up**
Total orders	**800**	180-200	**Kirana could gain** 20-25% topline growth to hit **~1,000 monthly orders** (from 800) driven by: • **Hyperlocal demand** redirected from catchment to online kirana (better product discovery) • **Higher impulse purchases due to access to credit, leading to premiumisation**
EBITDA (INR)	32,000	4,000-5,000	• Assuming an AOV of INR 500, a 13-15% increase in EBITDA could be realised

[1] For a store earning INR ~4 lakhs per month in a rural/semi-urban setting, figures in the chart scaled to 100, and the net margin in offline business is 7-9%. For 800 monthly orders, the EBITDA is ~INR 32,000.

[2] Unit economics is for an online order.

[3] Buyer app incurs costs in marketing, employee, IT, and customer servicing, whereas the seller app incurs costs in kirana digitalisation and management, employee, and IT. Given thin margins, buyer apps could consider grocery as a traffic-generating sector to enhance customer engagement and seek to cover costs from ad revenue from the brands to reduce the fee to kirana further, thereby improving the kirana economics online.

Five considerations to shape digital commerce in the grocery sector

01
Generate demand

Buyer apps must mobilise their existing user base to search for their favourite hyperlocal products to drive adoption of a new buyer interface. Financial institutions could help draw customers by offering monthly credit.

02
Digitalise inventory

Seller apps could take the lead in driving store digitalisation across both kiranas and wholesale. They could begin by leveraging modern retail, stand-alone modern trade (SAMT), and company dark stores or distributors with digitalised inventory to manage product availability. Real-time conversational order acceptance at the kirana level could be implemented over time. A convenient and efficient way to digitalise the small grocery stores inventory would be a big unlock.

03
Manage change effectively

Seller apps could encourage both the kirana and wholesale traders to adopt e-grocery by creating a compelling case for change, that includes structured incentives and formal credit at fair rates.

04
Improve cataloguing

There is a need to create a standardised catalogue to ensure that the brand design, representation, and detail can be easily replicated by multiple sellers.

05
Enhance logistics capabilities

Delivery partners could establish multipoint pick-up capabilities at lower costs, while stores could develop their capabilities for short-distance deliveries.

> Ramping up digitalisation with local kiranas could transform the momentum of e-grocery in India. With a strong focus on enablers for digital commerce, ONDC could unlock this immense potential for the country's economy and people.
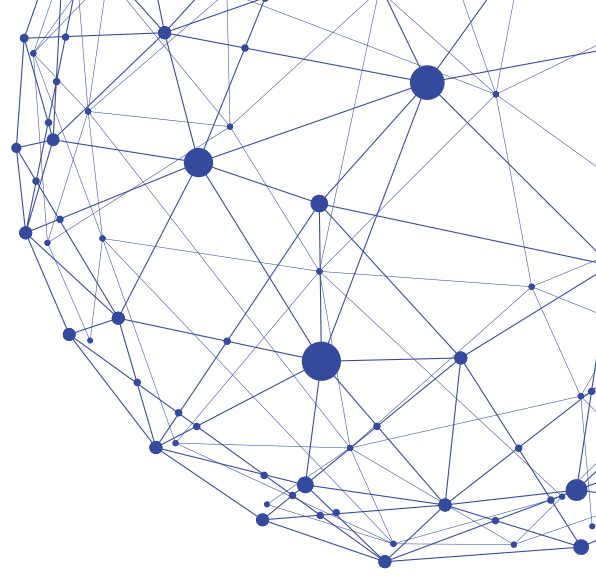
Getting on board with ONDC

ONDC holds the potential to create open, inclusive, and competitive marketplaces in the virtual world. It will be important for companies to carefully evaluate the options available to them as they consider entering this space. This could help them to identify plays that maximise benefits from the immense opportunities unlocked by the open network.

As company leaders look to make the most of the opportunities ONDC offers, they could explore the possibilities across two themes.

First, they could determine which use cases have potential to scale fast and which would take longer to yield results. And second, they could evaluate where they are best positioned to play—through the lens of the market opportunity, their own capabilities, and the consequent feasibility of investing in specific use cases. This could support them in making the most relevant investments to achieve their company's strategic objectives.

Assessing scalability

As a market maker keen to create and democratise opportunities for all participants, ONDC could catalyse a range of business opportunities in the short, medium and long term (Exhibit 6).

This answer emerged after analysing three indicators of potential to scale:

— Short term: Digitisation of existing hyperlocal goods and services

— Medium term: Scaling up and innovating in D2C businesses

— Long term: Digitising new use cases for ONDC-first business models, especially in B2B
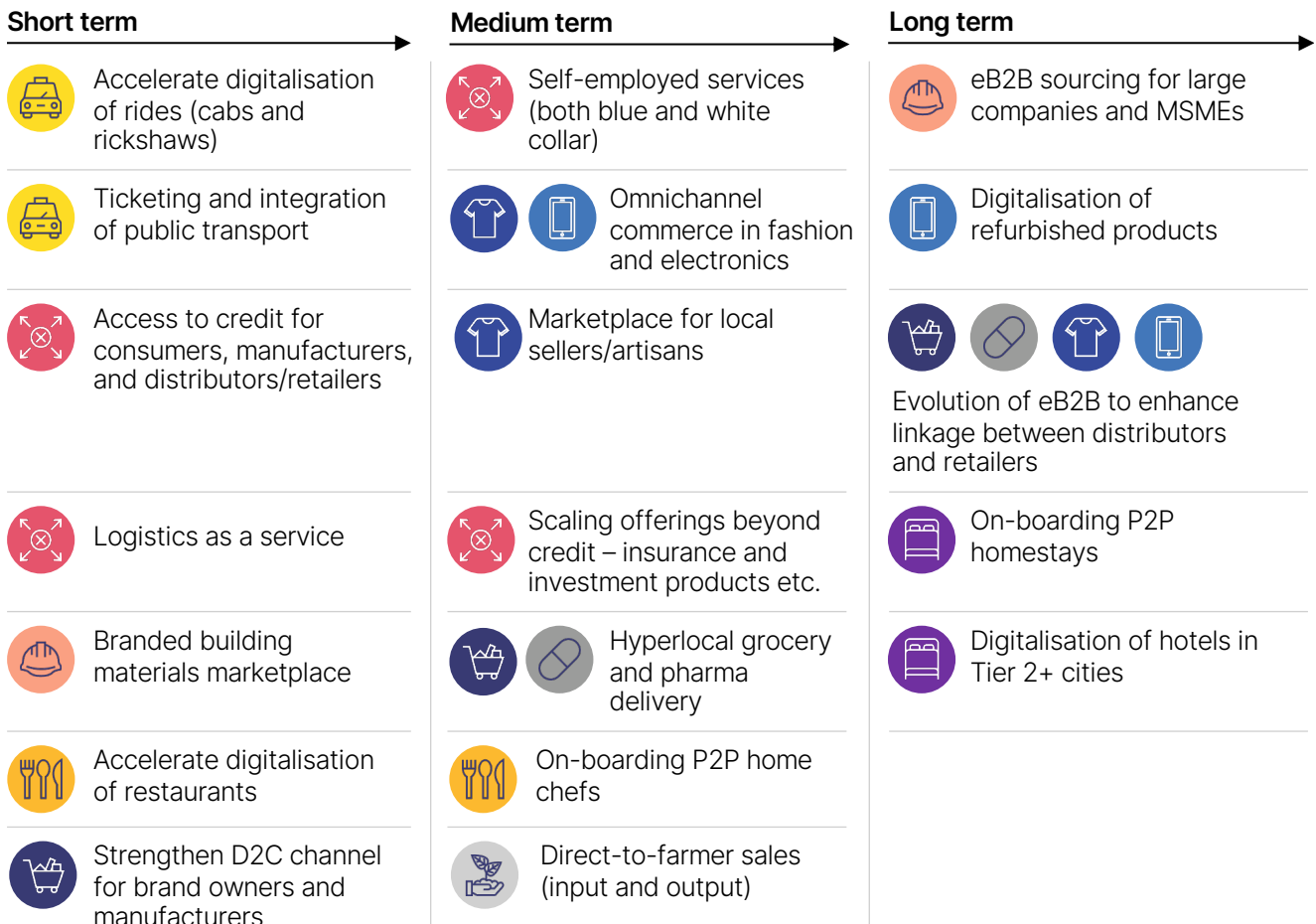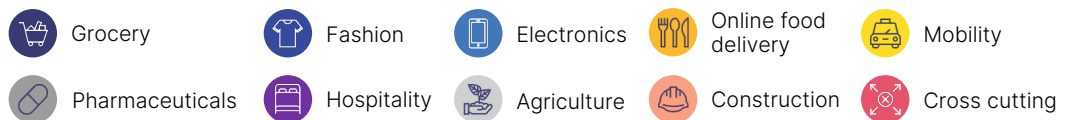
As companies think about use cases they could prioritise, it would make sense to look at their options through three lenses:

1. The use case should solve an unsolved problem.

2. It should have a ready ecosystem (for example, digitalised supply chain, standardised goods and services, or ease of logistics and fulfilment).

3. It should be economically viable.

Exhibit 6

Use cases in the short term could prove the most beneficial for driving early adoption and scale.

Not exhaustive

🛒 Grocery	👕 Fashion	📱 Electronics	🍽 Online food delivery	🚕 Mobility
💊 Pharmaceuticals	🛏 Hospitality	🌱 Agriculture	⛑ Construction	⊗ Cross cutting

Short term →

🚕 Accelerate digitalisation of rides (cabs and rickshaws)

🚕 Ticketing and integration of public transport

⊗ Access to credit for consumers, manufacturers, and distributors/retailers

⊗ Logistics as a service

⛑ Branded building materials marketplace

🍽 Accelerate digitalisation of restaurants

🛒 Strengthen D2C channel for brand owners and manufacturers

Medium term →

⊗ Self-employed services (both blue and white collar)

👕📱 Omnichannel commerce in fashion and electronics

👕 Marketplace for local sellers/artisans

⊗ Scaling offerings beyond credit – insurance and investment products etc.

🛒💊 Hyperlocal grocery and pharma delivery

🍽 On-boarding P2P home chefs

🌱 Direct-to-farmer sales (input and output)

Long term →

⛑ eB2B sourcing for large companies and MSMEs

📱 Digitalisation of refurbished products

🛒💊👕📱 Evolution of eB2B to enhance linkage between distributors and retailers

🛏 On-boarding P2P homestays

🛏 Digitalisation of hotels in Tier 2+ cities

Identifying the best-fit use case for a company

Companies looking to develop innovative business models that tap the open network can examine the opportunity against two considerations: how to participate immediately in a fast-developing space, and how to reimagine their business for an open network and its possibilities.

Businesses need to zero in on the most relevant use cases that map to their chosen stance as a shaper or a fast follower. They can accordingly identify a pool of investable resources to help them pursue the opportunity.

If the collective investments of companies across industries can support the expansion of ONDC, they could unlock the full potential of digital commerce for buyers, sellers, third-party providers, and India as a whole. Companies and entrepreneurs must carefully consider several strategic questions:

— **Evaluate the opportunity.** How will an open network disrupt the sector? What is the problem that it will solve, and for whom? Which are the most relevant use cases for the business? What are the potential benefits of addressing this problem? What are the potential risks and challenges in implementing these use cases?

— **Identify the capability required.** Which role (e.g., seller, buyer, tech service provider, etc.) is the company best positioned to play? What are the key capabilities needed to execute the use case? What are the resource requirements (for instance, people, time, or money) in building out these use cases? How should governance be managed, including engagement with the ONDC core team and network participants?

— **Evaluate feasibility of the use cases.** When should a company decide to implement or pilot a use case? Should the organisation be a leader or a fast follower? What are the feasibility considerations for executing the use case (for example, market, financial, or legal)? What should be the pilot structure for prioritised use cases including the initial investment and scale-up milestones?

ONDC presents a unique avenue for India to revolutionise its digital commerce landscape and set an example for the world, much as it did with UPI. With vast potential for a robust buyer and seller ecosystem, ONDC represents an opportunity that arises once in a decade. Stakeholders—government, industry players, and consumers—can determine how to seize this 'tech-ade,' putting their best, most innovative selves forward to democratise digital commerce for all.

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