UNLOCKING THE POTENTIAL OF KIRANA STORES WITH ONDC

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Acknowledgements

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Disclaimer

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Executive Summary

Almost 1.27 crore kirana stores dot the grocery retail landscape in India, comprising nearly 90% of the retail sector (United States Department of Agriculture [USDA] 2021). Despite their unique benefits, these neighbourhood convenience stores have been on the decline in recent years due to tough competition from e-commerce and the organised retail sectors. It is estimated that the share of kiranas in the grocery retail space will shrink to 70% over the next few years (McKinsey 2022) as consumers get used to the discounts, variety and shopping convenience offered by alternative grocery retailers.

Marred by operational inefficiencies, kirana stores are unable to provide attractive deals, variety and online shopping options to their consumers. Kirana retailers are thus placed at a serious disadvantage vis-a-vis other modern retailers. Digitising key operations such as procurement, inventory management and bookkeeping can help solve some of the operational challenges and boost incomes (Accenture 2020). Further, kiranas can create a digital storefront or list their products on aggregator platforms to build an online presence and enlarge their catchment area. Although emerging business-to-business (B2B) service providers are offering piecemeal digitisation services to kiranas, only 15,000 of these hyperlocal stores have adopted digitisation so far (Observer Research Foundation [ORF] 2021). The slow uptake is a result of the barriers to digitisation, which the existing kirana-tech solutions have failed to address. These barriers include platform lock-in, duplication of onboarding costs, inadequate access to allied services and limited end-user traction. In addition, behavioural factors such as a trust deficit and a rigid mindset have discouraged kiranas from integrating into the online grocery retail ecosystem.

The ambitious Open Network for Digital Commerce (ONDC) initiative offers an innovative strategy to accelerate digital transformation for kirana stores, by enabling their *phygital* (physical and digital) presence. The ONDC can be instrumental in integrating kiranas into the formal e-retail ecosystem through its open protocol-enabled architecture. We propose that the ONDC, through its network-centric approach can resolve key pain points for kiranas, including platform lock-in, duplication of platform onboarding efforts, trust deficit, discoverability and access to value chain partners.

The ONDC's technical architecture needs to be complemented with philanthropic support to deliver digitisation benefits to kirana stores. Philanthropic initiatives have a vital role in gathering input and leveraging evidence for the effective and equitable implementation of ONDC, thereby demonstrating its true potential. Community engagement, product innovation and ecosystem enablement should be the priority areas for philanthropic investments, to achieve the intended last-mile impact of the ONDC.

Kiranas Need to Reclaim their Shrinking Space in the Grocery Retail Landscape

Nearly 1.27 crore kirana stores constituting the 'traditional' retail sector in India make up almost 90% of the market, with the remaining market share held by the steadily expanding organised retail and e-commerce players (United States Department of Agriculture [USDA] 2021).

Figure 1: There are approximately 1.2 crore kirana stores in India for a population of 120 crores

01 KIRANA STORE   100 INDIANS
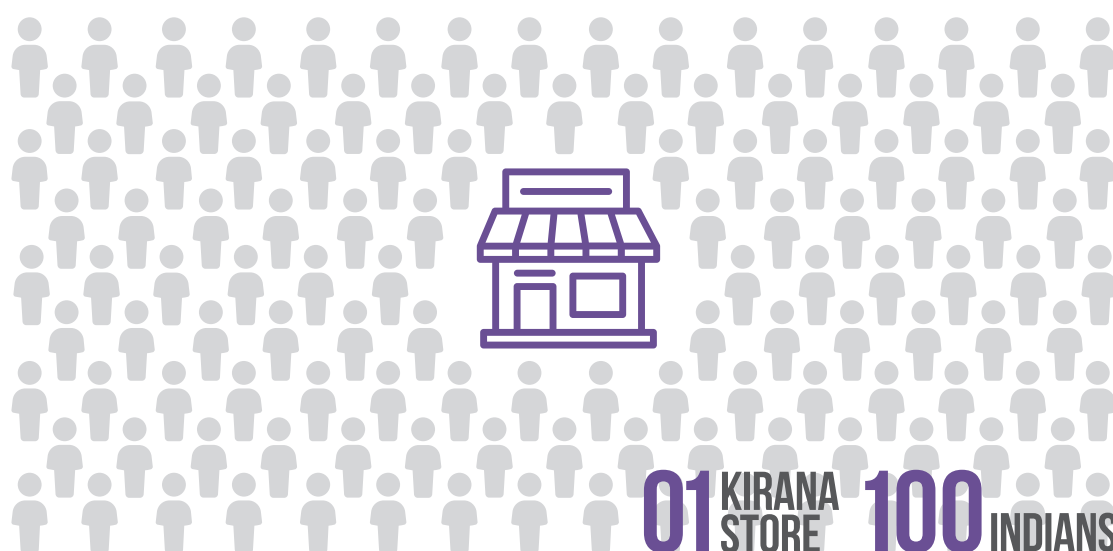
(Mitsui & Co. Global Strategic Studies Institute 2018)

Kiranas offer convenience and trust to consumers

These outlets offer personalised services to their regular clientele, such as phone and WhatsApp-based fast and free home delivery. Consumers are also able to buy on-demand products in limited quantities. This includes, for example, shampoo sachet packets instead of a larger bottle, and four eggs instead of a full crate, which is in contrast to the high-volume packets available through larger e-grocers. During the nationwide lockdown in 2020, when the e-grocery providers, not deemed as essential services at the time, saw supply chain disruptions, kirana stores met local demand efficiently as they were better stocked due to their strong networks with local distributors. This underlined their continuing importance in the grocery retail landscape.

Figure 2: Kirana store classification (based on monthly revenue in Rupees)

Class D	Class C	Class B	Class A
<4 LAKH	4-6 LAKH	6-10 LAKH	10-15 LAKH
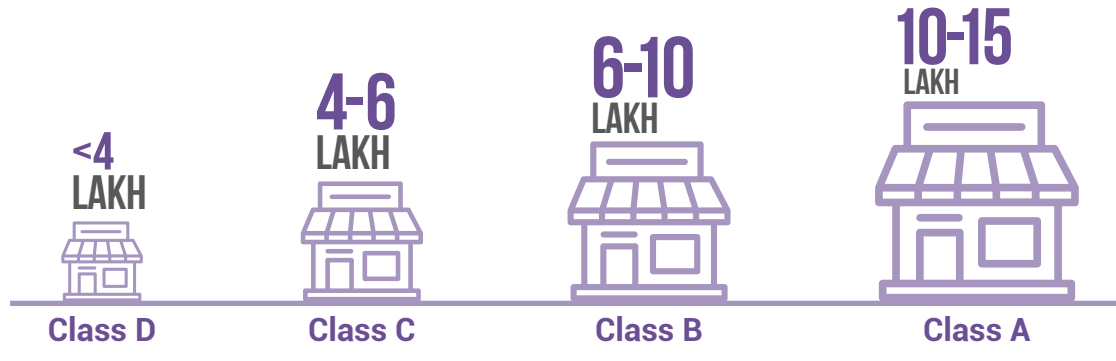
(Anup Kumar, founder of Kirana King)

Modern retail is eating into the market share of kirana stores

However, rapidly evolving consumer preferences have precipitated a shift away from kiranas towards modern retail and e-commerce. Despite the immense value provided by traditional retail, it has grown by a mere 0.31% compounded annual growth rate (CAGR) over the last six years, with about 2.4 lakh small-format outlets added between 2015 and 2021. Over the same period, the modern retail sector grew by nearly 5% CAGR (USDA 2021), albeit on a lower base. The McKinsey report (2022) on Indian grocery retail further predicts that the market share of kirana stores will fall to 70%, from the current 90%, in the coming three to five years, as consumers get accustomed to the variety, discounts and doorstep delivery offered by organised retailers and e-grocery providers. Operational inefficiencies leading to higher costs, and a lack of systematic insight into consumer buying trends limit the ability of kiranas to catch up with the evolving consumer preferences. Kirana outlets, especially in categories C and D (as classified in *Figure 2*) find it challenging to offer deals and stock a wide assortment of products, pushing consumers to explore alternative buying options.

Digitisation can unlock the growth potential of kirana stores

Kirana stores can reclaim their shrinking market share in the grocery retail landscape by leveraging technology in the areas of inventory management, procurement, bookkeeping and tracking consumer behaviour. Digital solutions for order management, inventory management and bookkeeping have benefitted kiranas with transparency, speed and efficiency. Accenture, in collaboration with the Trust for Retailers & Retail Associates of India, surveyed 57 'transformed' kirana stores across India and found promising results from the transformation (2020). Modernisation strategies (including technological solutions) vastly improved the profitability of stores, with remarkable downstream effects such as an increase in hiring of staff, thus promoting livelihood creation. Other effects included the promotion of the demand for locally-made artisanal food, which boosted the local economy involving women entrepreneurs and nano-businesses, and the expansion of tax contribution by 50%. In particular, the study reported that the average modernised kirana store enjoyed an increase in revenue of up to 300%, translating into a 30% to 400% improvement in profits.

Similarly, PepperTap, a social enterprise, collaborated with 300 kiranas in Delhi NCR to give them a digital facelift. This increased gross merchandise value (GMV) by an average of 80% for each store while registering a growth of 20% in order frequency (Sarkar 2022).

Figure 3: Some examples of kirana-tech startups in India

Logistics and Last-Mile Delivery	DELHIVERY pidge pickrr
Digital Bookkeeping	Khatabook OkCredit
Procurement	PepperTap ShopKirana Empowering Retailers udaan
Fintech/Credit/ Digital Payments	OkCredit BharatPe
Marketing & Brand Building	Kirana King
Digital Cataloging	BIKAYI dukaan OkShop MyStore
Full-Stack	Jumbotail SNAPBIZZ elasticrun

(Venkatraman & Khatri 2022; Sarkar & Pillapakkam 2022; ORF 2021; Menon 2020)

Startups and established industry players are ushering in the kirana-tech wave

Startups in the business-to-business (B2B) space such as Udaan, JumboTail, Kirana King, SnapBizz, Khatabook and others are offering tech-enabled solutions to ease business processes for kiranas. On the other hand, industry giants such as Reliance JioMart, Walmart-backed FlipKart and Amazon are competing with each other to collaborate with kirana stores for last-mile delivery, enabling the latter's digitisation journey in the process.

In the post-COVID era, kirana store owners experimented with cashless payments, app-based inventory management and online ordering, exhibiting a willingness to adopt technology for better growth. Evidence suggests that kiranas are eager to go cashless, partner with online delivery platforms and digitise overall operations (Observer Research Foundation [ORF] 2021). Despite the willingness of kiranas to take advantage of technological solutions, a mere 15,000 out of the 1.2 crore merchants have digitised their operations so far (ORF 2021). The existing approach to digitisation is riddled with bottlenecks, resulting in the slow digital adoption by kiranas.

Kirana-Tech Solutions are yet to Address Barriers to Digitisation

The road to digitisation is paved with obstacles, making it challenging for kirana store owners to adopt digital tools at a rapid pace. Industry conversations and secondary research have revealed the key barriers to digital adoption faced by kirana stores. These challenges, many arising due to the existing platform-centric approach, have not yet been addressed by the incumbent B2B players.

Platform lock-in

A seller's reputation on a given platform depends on successful transactions and ratings. However, if a business wants to migrate indicators of its credibility, namely its ratings and reviews, to another platform or its online storefront, it is unable to do so due to a locked-in system. Digital platforms currently operate as walled gardens and become 'keepers' of value by locking sellers into a siloed system, thus hampering the free flow of value necessary for a fair and efficient market.

Duplication of onboarding efforts

A kirana store wishing to onboard a digital platform needs to pay registration fees and engage in administrative procedures (such as document verification). These overheads have to be borne for each platform the store wants to have a presence on. Such duplication of effort and the requirement of multiple digital handshakes contribute to the slow adoption of technological innovations.

Mindset and inertia

Behavioural factors play an important role in technology acceptance, or the lack of it in this case. Many B2B entrepreneurs claim that the store owners are unwilling to spend time on digital cataloguing and inventory management. Kirana store owners may be hesitant to break their established habits to experiment with new solutions.

Trust deficit

Many kirana traders view technology as a threat to their business and are afraid of potential fraud and online scams due to lack of accountability in the ecosystem. Small business owners are especially wary of the industry giants, who are trying to gain a foothold in the grocery retail segment, resulting in mistrust and hesitation to collaborate with existing e-commerce sellers.

Lack of skills

The digital divide and language barriers deter kirana store owners from adopting apps and software enthusiastically. Some B2B enterprises have attempted to push tech-enabled solutions to kiranas without providing adequate training and after-sales support. Poorly designed, complicated mobile apps without regional language support further prevent effective onboarding and engagement of kirana retailers.

Limited discoverability

Customer engagement and retention remain pain points for kirana owners, who have experimented with building an online storefront. A lack of encouraging response from new and existing buyers results in slow gains and contributes to further hesitation in adopting digitisation.

The limited choice to avail allied services

Many specialised B2B initiatives do not provide end-to-end solutions, resulting in poor engagement and retention of the target group. For example, a digital storefront without efficient inventory management or a logistics arm does not yield substantial benefits, deterring traders from adopting these siloed tools. On the other hand, e-marketplaces such as Amazon and Flipkart, which provide access to all allied services (including logistics and delivery) under one umbrella, restrict the pool of choices available to an individual seller, and make sellers vulnerable to accepting, sometimes, unfavourable terms. For example, in September 2021, Amazon raised the logistics fee it charges sellers by 5%, pushing up the seller-side costs (Mishra 2021).

ONDC will Help Kirana Stores Overcome the Digitisation Barriers

The ONDC, a recently announced government initiative which aims to democratise e-commerce, can provide the necessary digitisation push to kirana stores, by addressing some of the obstacles described above.

The ONDC is built on the principles of unbundling and interoperability, with a vision to empower the smallest businesses by enabling their online presence in a platform-agnostic manner. This ambitious digital public good, piloted in April 2022, seeks to democratise and decentralise the national e-commerce landscape. It will do this by enabling a shift away from a platform-centric approach, to an open network-enabled architecture. This first-of-its-kind measure aims to accelerate the digital transformation of small businesses by removing some of the obstacles they face in their digitisation journey. While ONDC may not be a panacea for all of the digitisation challenges, it has the potential to empower kirana store owners, by resolving some of its key issues.

Figure 4: ONDC's network-based approach can overcome some of the digitisation barriers

Barrier to Digitisation	ONDC's Potential Impact
Platform Lock-in	High
Duplication of Onboarding Efforts	High
Mindset and Inertia	Low
Trust Deficit	Medium
Lack of Skills	Low
Limited Discoverability	Medium
Limited Choices to Avail Allied Services	High

Legend: Low | Medium | High

(Sattva 2022)

Enabling multiple choices to become digitally visible

In an open interoperable network, sellers can transact irrespective of the platform or application they use. Thus, there is no compulsion for a local kirana merchant to register with one or multiple aggregator marketplaces to be visible to its customers. A local app developer or a B2B startup can set up a digital storefront for the kirana, which will be visible on all the platforms registered on ONDC. This also eliminates the need for multiple digital handshakes, prevents duplication of onboarding processes, and provides more autonomy to the smaller players.

Building trust and managing perceptions

A government-backed initiative developed in consultation with relevant stakeholders (Retailers' Association of India and National Payments Corporation of India, to name a few) is expected to bridge the trust deficit by reshaping the attitudes of kirana store owners. A pan-India buzz surrounding the launch of ONDC could accelerate digitisation for small businesses by making it more appealing. Moreover, the ONDC's open playground can unlock opportunities for local entrepreneurs. The community can design solutions for the neighbourhood kirana store, fostering confidence and credibility.

Enhancing reach by democratising online discovery

The ONDC's location-aware unified search feature will allow the discoverability of a registered kirana store in an affordable manner. This happens due to two reasons. Firstly, the store owner need not devise an elaborate, or expensive, customer acquisition strategy to improve reach and engagement for its online storefront. Secondly, the kirana store need not be registered on multiple marketplace platforms and pay hefty commissions to each of them for preferential listing. The common registration feature ensures that a kirana store is visible on all participating platforms and apps in the network. This lowers upfront onboarding costs and eliminates the need for additional marketing expenditure, making digitisation a lucrative bet.

Widening access to logistics and delivery partners

The unbundling and interoperability features of the ONDC architecture allow microservices, including logistics, warehousing and last-mile delivery, to be separately operated by different actors to put together a complete transaction. Armed with this capability, kirana store owners can focus on immediate operational concerns, rather than managing ancillary activities. Sellers can choose the best combination of registered service providers at competitive prices, rather than being compelled to use the ancillary services provided by an aggregator platform. This further reduces entry barriers for smaller retailers, by providing a user-friendly, one-stop solution through a unified network.

Philanthropy can Support Digitisation Efforts

The ONDC holds promise to resolve the challenges faced by kirana stores in adopting digitisation. However, technology may not address the behavioural obstacles to digital transformation, which need intervention by multiple stakeholders, including philanthropic

foundations. In addition to stakeholder engagement and bridging the trust gap, donor agencies have an important role to play in mobilising the required funding towards crucial areas of product enhancement and ecosystem enablement as well.

Fostering product innovation

Philanthropic capital can enable and accelerate further enhancements in the digital architecture of ONDC, making it more inclusive and equitable for those on the bottom rung of the ecosystem.

- **Funding Research and Advocacy in Cybersecurity:** Given that the low uptake of digital technologies is often attributed to the fear of online banking fraud, channelling funds towards cybersecurity research should be a priority for donor agencies. Supporting policy advocacy efforts to strengthen accountability and redressal mechanisms should be another focus area for philanthropists.

- **Funding Innovation for Equitable Access:** The perceived inconvenience due to a lack of literacy or English skills slows down digital adoption for the bottom of the pyramid. Directing philanthropic capital to support innovations in voice-and-vernacular-based technologies can help overcome the digital and language barriers, enabling equitable access.

- **Boosting Entrepreneurship in Specialised Allied Services:** Procurement, logistics and delivery remain pain points for smaller retailers. Hence there is a need to boost innovative ideas in these areas by financing incubators, accelerators and hackathons. PepperTap (Sarkar 2022) and Pickrr (Sarkar et al. 2021) are two social enterprises that have been supported by philanthropic funding from the Omidyar Network. These enterprises have attempted to streamline procurement and delivery for kiranas with promising results. More such enterprises can confidently integrate themselves with the ONDC with financial support from philanthropists.

Addressing capacity bottlenecks and trust deficit

Digital literacy is still nascent in India with estimates suggesting that only 38% of households are digitally literate (Mothkoor & Mumtaz 2021). Breaking taboos and reframing perceptions around digital tools are essential steps in improving the adoption of digitisation for both buyers and sellers. Philanthropists can fund targeted efforts to build capacity and bridge the trust deficit.

- **Digital Skilling:** Lack of digital literacy can significantly hinder creating a *phygital* presence for kiranas. Hence, substantive efforts are required to build digital skilling and technical know-how capacity. For example, the Digital Sakhi programme, funded by the CSR wing of the L&T Financial Services, has been a valuable intervention in educating, influencing and helping rural community members on the topic of digital financial literacy. Similar programmes can be designed to harness the power of community-based, last-mile agents and enhance the participation of digitally excluded retailers by securing their trust.

- **Tax Compliance:** With integration into formal commerce channels, kirana store owners would need guidance on taxation and licensing compliance. This can be facilitated through philanthropic initiatives, for example, by organising tax camps or setting up online help desks.

Facilitating equitable access for excluded groups

The struggle for successful integration into the e-commerce ecosystem is much greater for marginalised groups in India. Equitable access to the ONDC is crucial to truly achieve the vision of democratised and inclusive e-commerce.

- **Support for Vulnerable Groups:** First-generation entrepreneurs who are historically excluded along the lines of gender, caste and geography, face severe growth constraints due to lack of mentorship and capital. Philanthropic assistance in the form of interest-free loans or grants will allow easier uptake of technological tools, such as point-of-sale devices, for needy store owners. Programmes such as Internet Saathi, a Google and Tata Trusts initiative aiming to empower women to become entrepreneurs by creating awareness about digitally enabled livelihoods, can bolster ONDC's last-mile impact.

- **Support for Infrastructure:** Aid is also needed to build and expand internet-access infrastructure in remote and commercially unviable regions. For example, the Omidyar Network has supported i2e1 (Information to Every One), which aims to provide low-cost internet to the masses, thus bridging the digital divide.

Enhancing the ecosystem

Philanthropic foundations require a multi-pronged strategy to enrich and empower the ONDC ecosystem. This can be achieved through:

- **Monitoring and Evaluation:** It is crucial to conduct testing and iterating on the ONDC's pilots, to identify gaps for course correction before scaling up the solution. Funding in-depth studies to recognise possibilities in areas of improvement will help disseminate knowledge and shape the future discourse.

- **Synergising Talent:** Pairing tech talent with policymakers to enable the next generation of changemakers should be another priority area for philanthropists. This can be done by facilitating partnerships and collaboration to initiate conversations between relevant stakeholders.

Conclusion

The ambitious ONDC initiative offers an innovative approach to enable a *phygital* presence for kirana stores, which are arguably struggling in the face of competition from online retail channels. This digital public good has the potential to integrate kiranas into the formal

retail ecosystem by overcoming critical barriers to digitisation. The ONDC's technological capabilities of interoperability and unbundling will accelerate the digital transformation process for kirana stores, providing them with increased visibility and an opportunity to widen their catchment area.

While the ONDC can ease the technical barriers to digitisation, philanthropy still has a vital role in improving the uptake of digital tools, by solving behavioural challenges and ensuring equitable access to the bottom of the socio-economic pyramid. Philanthropic capital will be catalytic in gathering input and leveraging evidence for the effective and equitable implementation of ONDC, thereby validating its true potential.

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