e-B2B Distribution Strategy and Network Design for Nanostores

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Sponsor: Ecommerce B2B Wholesale Platform

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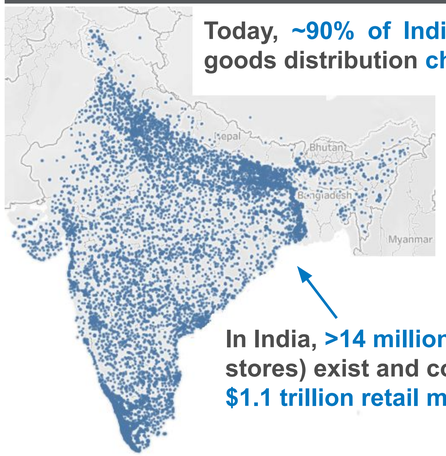
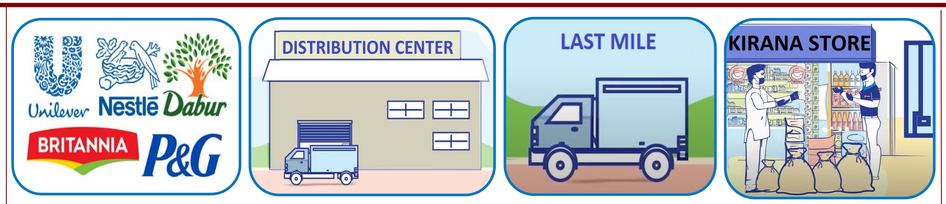
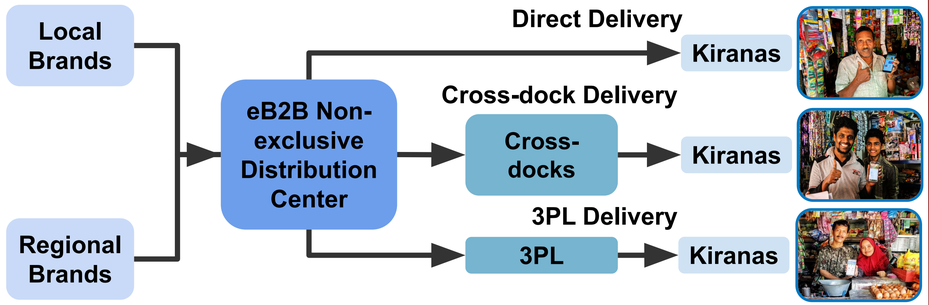
Motivation / Background



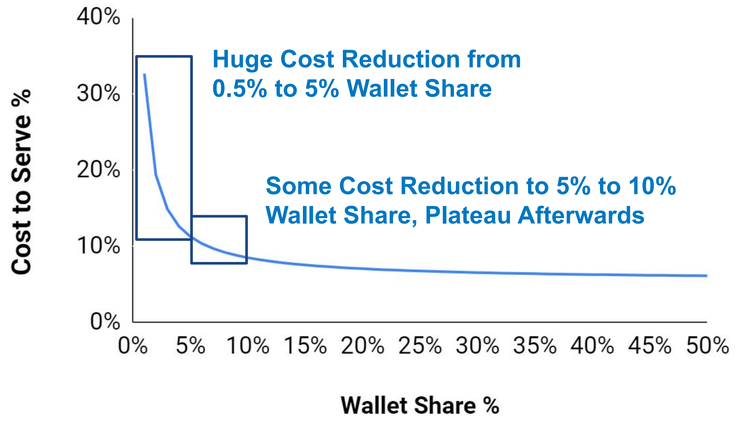
Today, **~90% of India's** consumer packaged goods distribution **channels are fragmented**

In India, **>14 million kiranas** (mom & pop stores) exist and comprise **80% of India's $1.1 trillion retail market**





Selected Results



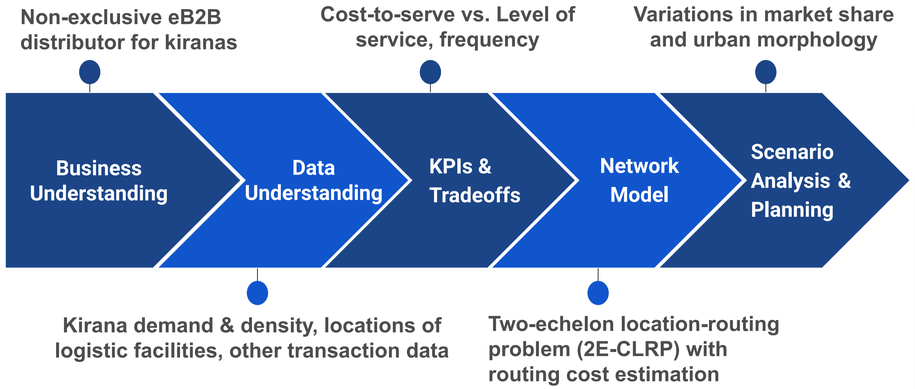
Key Question / Hypothesis

- What should be **the eB2B distribution strategy** to serve Kiranas at **optimal cost subject to a range of service levels**?
- What **factors of urban network design** should be considered to implement the distribution strategy at different stages?

The Problem

Current fragmented channels of exclusive distributors are **costing kiranas >50% of their potential margins** and impacts their business viability

Methodology



Key Insights

1) Through **e-B2B distribution**, **optimal cost savings** can be achieved at a certain **threshold value of wallet share and market penetration**.

2) Geographical **circuity** constraints and **increasing frequency** do not significantly increase logistics costs

3) Emerging **e-B2B distribution models** can provide **effective operations and lowest cost to serve** for CPG brands across all channels.

Relevant Literature

- Kin, B. (2018). **The Fragmented Last Mile to Nanostores in Cities–A Stakeholder-based Search for a Panacea**. Vrije Universiteit Brussel PhD Dissertation.
- Mejía-Argueta, C., Boulaksil, Y. & Fransoo, J.C. (2020). **"Impact of congestion, accessibility and density in distribution networks of megacities"**. Working paper MIT CTL.
- Merchán Dueñas, D. E. (2015). **Transshipment networks for last-mile delivery in congested urban areas** (Doctoral dissertation, Massachusetts Institute of Technology).

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