



Q4 2023

LIDD INSIDER

News & Insights for Supply
Chain Leaders

lidd.com



Business Insights

Navigating Supply Chain Networks

In this edition, we explore the power of network studies in streamlining operations, reducing transportation costs, and enhancing overall efficiency for businesses. We also highlight the significant role that real estate decisions play in shaping supply chain networks, offering actionable insights from industry leaders. Join us as we delve into how supply chain leaders leverage network studies for operational excellence and uncover strategies for maximizing your supply chain's potential.

This edition also features insights from LIDD partner, ENCOR. This quarter's newsletter is filled with exclusive case studies and expert analysis, providing tangible and actionable takeaways to elevate your supply chain management.



ENCOR Advisors is one of the largest Canadian corporate real estate consulting and brokerage firms that focuses on occupiers.

LIDD's strategic alliance with ENCOR allows clients to optimize supply chain strategy with global commercial real estate insights. ENCOR enlightens clients with a wide range of assessments that uncover key constraints, levers, drivers, strategies and recommendations for clients.

Market Insights

863M SF

Total GTA Inventory

\$341

Average Net Sales
Price

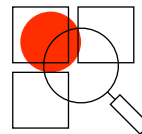
\$18.53

Average Net
Asking Rent

27.9M SF

Total GTA Inventory
Under Construction

1.4%

Vacancy
rate


Success Story Overview

**Canadian Candy
Distributor Achieves
\$1.5M in Yearly Savings**

ENCOR Success Story Overview

**Proactive Strategy for
Customizing a
Manufacturer's
Refrigerated
Distribution Facility**

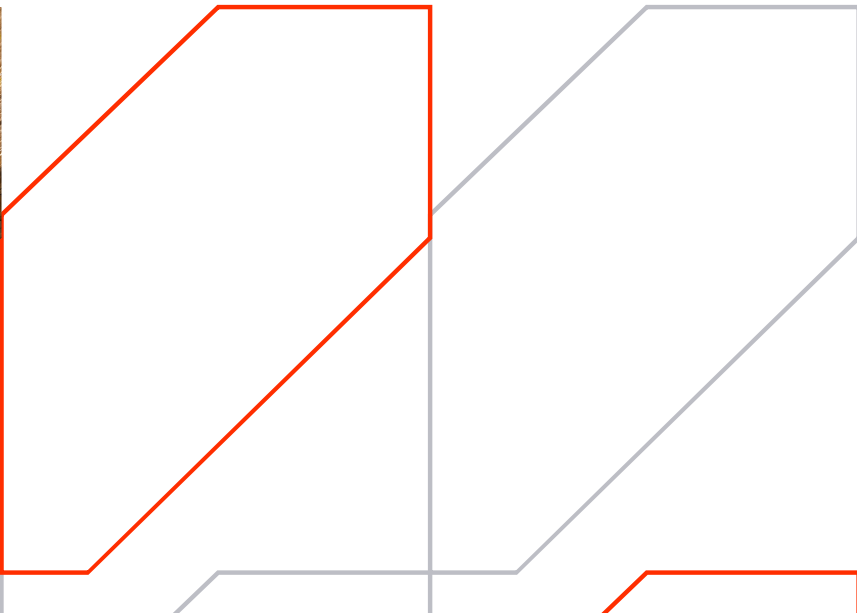
What are Network Studies, and Why are they Important?

Overview

Network studies enable companies to determine the optimal network configuration that meets customer demand while reducing operational costs. The primary objective is to strike a balance between quantitative aspects such as transportation, inventory placement, inventory value, occupancy, and operating costs, and qualitative factors like service levels, labor availability, and market entry. This delicate equilibrium is essential for maximizing network utilization and minimizing expenses effectively.

There are several reasons why network studies are valuable for a business:

- 1** **Network expansion and facility search:** During growth, businesses may need additional capacity and explore leasing or building new facilities. Network studies help locate and evaluate potential locations for suitable buildings or land.
- 2** **Fuel cost and emissions reduction:** Optimizing network node locations is crucial for reducing delivery distances. Network studies analyze this and create scenarios to balance warehousing and transportation impacts.
- 3** **Inventory value and interest rates:** Pandemic-related supply chain issues have increased inventory levels, which accrue interest at high rates. Network studies assess centralized options to reduce safety stock, inventory quantities, and increase working capital.
- 4** **Changing sales channels and SLA expectations:** Online customers demand fast shipments, requiring a robust network for rapid fulfillment. Labor shortages and leasing costs necessitate frequent and smaller orders. Network studies evaluate benefits of reducing transportation time and distance, facilitating easier additions to deliveries.
- 5** **Complex supply chains and transportation costs:** Rapidly growing companies often resort to quick-fix solutions, resulting in numerous facilities, transfers, and high transportation expenses. Network studies provide strategic plans to optimize networks efficiently.



LIDD's Approach

LIDD uses a quantitative and qualitative approach to model and assess the material flows, methods, facilities, equipment and processes behind the distribution network.

Discover

1

Gather Data: LIDD will model operations, reviewing labor functions and the flow of materials and information. Workshops with key stakeholders will be held to understand operational drivers. Meanwhile, data will be collected for analysis to profile the operations.

2

Define and optimize baseline: LIDD will compile the information gathered during the first step to model current network and warehousing operations, establish benchmark KPIs and compare them against industry standards to identify opportunities. This forms a baseline, which is then reviewed by the client's team.

Once the client validates the baseline, we can initiate the modeling phase. This step involves developing a future-oriented operational model based on the client's growth targets, service level, and other stakeholder requirements.

Model

1

Characterize and define the future network: Based on client growth projections, a business model is created to define the future network, characterizing major service areas and mapping inbound shipments and delivery points.

2

Scenarios: DC location scenarios are established, taking into account inventory strategies, lead times, service levels, and material flow.

3

Concepts and design: Each DC scenario is evaluated for different storage and operating methods to determine size, labor needs, and one-time CapEx budgets.

With all the characteristics set and calculated, LIDD will assess the different scenarios.

Assess

1

Financial Models: LIDD models each scenario's financial performance over a set time, categorizing expenses and savings into recurring costs (labour, occupancy, transportation) and one-time costs (capital investment, transition cost).

1

Evaluation: LIDD offers a weighted evaluation matrix encompassing financial performance, service level, risks, flexibility, scalability, implementation, and timelines for client input.



Is Your Business Ready for Logistics Automation?

Don't risk making costly mistakes or investing without a clear plan – let LIDD's assessment tool guide you towards a successful implementation.



Assess. Identify. Act

Scan the QR code to evaluate your automation readiness and receive a customized action plan from LIDD.

Success Story

International Candy Distributor Network and Distribution Optimization

In 2022, we formed a partnership with an exclusive distributor of candy and chocolate brands in Canada. The company had recently acquired several new business units, adding new locations and products to their network. Moreover, they were set to renegotiate several lease agreements within the next 16 months and had plans for organic growth and further acquisitions.

They enlisted LIDD's assistance to assess their existing network and devise a 5-year roadmap for optimizing their network and operations.

Challenge:

During peak periods, the company had to use costly third-party logistics due to full capacity at their distribution centers. Old leases were nearing market value and pandemic-driven fuel cost hikes increased transportation expenses, prompting consideration of centralizing distribution near production sites

Response:

LIDD interviewed stakeholders and mapped the business to understand challenges, evaluate scenarios for order fulfillment, optimize inventory placement and warehouse —

\$1.5M in Annual Savings

Realized annual savings over 5 year period.

— utilization. Recognizing varying peak periods for different products, they identified inventory location as critical to minimize cost due to excessive transfers and 3PL usage.

Solution:

LIDD developed a financial model of the network, guiding the board through necessary changes and their impact on investments and results. This led to \$1.5M annual savings over five years with minimal capital investment, achieved by storing products nearer to destinations and using low-cost facilities during different peaks for various products



Global Distribution Networks: Managing Trends with Barbie

Barbie, a global icon since 1959 with over \$1B in ticket sales, faced a 23% demand downturn and potential inventory surplus earlier this year. Fast forward to now, a hit movie has spurred a 56% surge in Barbie sales, leaving suppliers scrambling to stock up for the holidays. Capitalizing on trends and cultural phenomena remains a complex puzzle in supply chain management, with no one-size-fits-all solution. Barbie, serves as a case study in this aspect.

Demand Sensing: Avoiding the Bullwhip Effect

Traditional forecasting methods rely on historical data, often utilizing statistical models to analyze patterns and trends over a fixed period of time. Barbie has consistently generated over \$1B in yearly gross billings for Mattel since 2015; though the yearly numbers have fluctuated +/- 10%, there's no doubt that Mattel has a solid statistical model in place to determine baseline global inventory positions for its production and procurement of the world's most famous doll.

Yet, when Barbie re-emerged as a global feminist icon in 2023, it posed a question: was Mattel's traditional forecast prepared for this growth?

To navigate this, Mattel likely employed demand sensing - an immediate forecasting tool. With real-time data and accessible predictive modeling, demand sensing now utilizes data from social media, online reviews, and search keywords across platforms to influence supply chains.

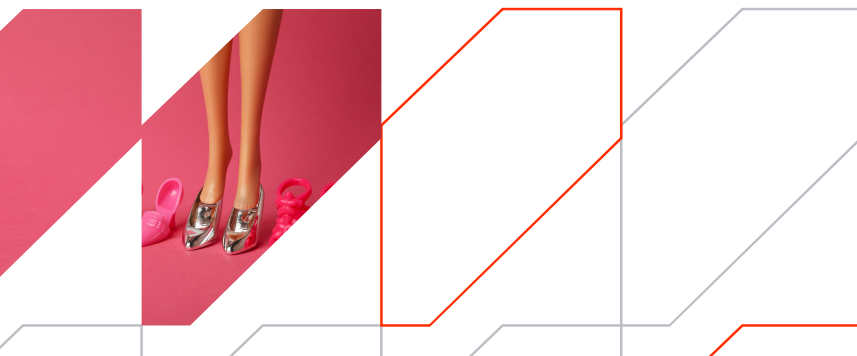
This tool is crucial in mitigating the "bullwhip effect" - overreaction to market shifts, and leveraging new data types for better decision-making. Alongside recognizing potential demand, Mattel has refined its supply chain strategy over the years for a more fluid inventory network.



Barbie's Pop-Culture Dominance

Demand sensing models could have accurately forecasted Barbie's pop culture dominance when:

- Valentino's Spring 2022 show was heavily influenced by Barbiecore, paving the way for various shades of pink across brands to make its way onto retail shelves in Fall 2022
- A 271% increase in keyword search "Barbie" across key platforms following the movie's trailer debut in December 2022
- Content with #Barbiecore hitting over 500 million views on TikTok
- Barbie-related toys and searches creeping into Amazon's Top 100 list



LIDD Insights

In the challenging toy industry, chasing demand, even with trend insights and decades of data, is tough. Mattel's Barbie journey showcases resilience and the advantages of flexible, complex supply chain strategies to adapt to consumer changes.

Supply Chain Efficiency: Glocalization

Chasing demand, especially in the tooling-focused, long lead time, and highly seasonal toy industry, is extraordinarily challenging, even with a finger on the pulse of trends and 50 years of historical data. Mattel's Barbie journey is a compelling case study for remarkable resilience, highlighting the benefits of adopting more flexible, yet highly complex, supply chain strategies to meet changes in the consumer landscape.

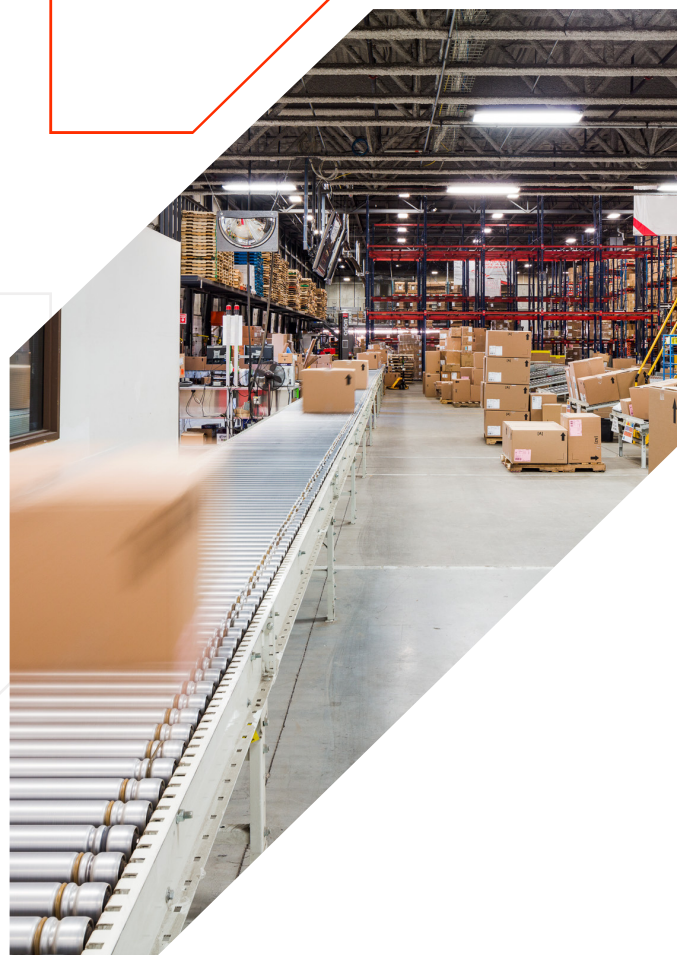
While Mattel likely won't move major Barbie production from its Asian hubs, they've broadened manufacturing to Mexico and Canada for North American markets, adopting a "glocalization" perspective.

For Mattel, this means investing in and staging raw materials for Barbie's infinite accessories – clothes, car, Dreamhouse – closer to core markets to satisfy the lift in consumer needs driven by box office success. A combined near-shore / offshore approach provides Barbie the ability to be more reactive to demand signals, minimize on-hand inventory investments, launch seasonal and on-trend products, while keeping shelves stocked with items for holiday sales on the horizon.

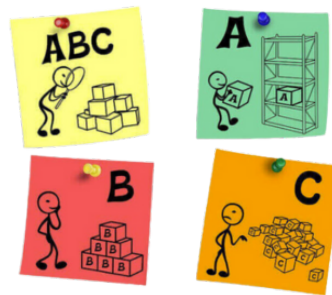
While near-shoring may not be essential for every business, it's certainly a strategy worth exploring in our increasingly globalized world.

Key Takeaways

- Companies must embrace new avenues to accurately forecast and respond to market.
- Adopting flexible supply chain strategies, such as glocalization, can enable businesses to meet changing consumer needs while optimizing inventory management.
- Supply chain tools and strategies are always evolving; it is critical for businesses to continually evaluate needs and refine these strategies to meet the dynamic landscape.



What is ABC Analysis?



LIDD's ABC Analysis Tool categorizes inventory into A, B, and C groups, leveraging the Pareto Principle (80/20 rule) to prioritize items based on value. With this intuitive analysis, businesses can optimize resources, reduce costs, and enhance efficiency by focusing on high-value items while minimizing waste.

contact@lidd.com to learn more.

Overcoming Cold Storage Challenges in the CPG Sector



Customizing a Manufacturer's Refrigerated Distribution Facility

A notable manufacturer in the CPG Sector faced challenges with their existing GTA facility, ill-suited for cold storage.

Challenge:

While generic ambient shell buildings appeared cost-effective, they concealed higher long-term expenses, especially with retrofitting for "box-in-a-box" refrigeration. This energy-inefficient approach, combined with a tight GTA landlord market with under 2% vacancy, amplified the dilemma.

Response:

ENCOR took charge of the situation by partnering with a cold chain design-build company to understand the client's precise requirements for refrigeration and space. Initially, we focused on evaluating existing buildings as per the client's request. However, it became apparent that most landlords were hesitant to support a box-in-a-box retrofit due to their inexperience with such solutions and concerns about their asset value.

Recognizing these challenges, ENCOR approached select industrial developers amenable to crafting a custom greenfield facility, with the support of the cold chain design-build firm. Initial proposals from these developers, skeptical of the design's lasting value, presented above-market lease terms. To counteract, ENCOR and our partner adjusted the building spec, harmonizing immediate client requirements with future property owner interests.

\$10M

In upfront cost savings compared to box-in-a-box alternatives

Solution:

The outcome was a strategically positioned, cutting-edge, refrigerated distribution center, streamlining operational efficiencies and minimizing costs. This tailor-made solution is projected to yield upfront savings of approximately \$10 million compared to box-in-a-box alternatives. ENCOR's strategy demonstrated the undeniable advantages of tailored solutions in industrial real estate, turning potential hurdles into operational triumphs.





ENCOR enlightens clients with a wide range of assessments that uncover key constraints, levers, drivers, strategies and recommendations for clients.

Transaction management

Acquisition and disposition of spaces and buildings.

Strategy & Consulting

Development of strategies and occupancy models aligned with business plans.

Fractional CRE Solutions

In-house fractional services for clients who do not have the budget or need for full-time corporate real estate employees.

Project Management

Leadership of design and construction project teams to deliver buildings on time and on budget.

Lease Management

Real estate portfolio support to help clients manage occupancy costs, reduce risk and track critical dates.

Strategic Partnership

Leveraging an integrated approach to supply chain and real estate, LIDD and ENCOR can also work with clients to maximize value and minimize costs through effective design, site selection, lease/purchase contract negotiations and project management. This includes structuring and negotiating building specifications and complex business and legal terms within lease renewals, relocations, build-to-suit agreements and property purchases and sales.



LIDD Supply Chain Consulting

LIDD is a full service, global operations and supply-chain consulting firm. Our industry leading team of design, strategy, and technology experts optimize operations, enhance productivity, and build intelligent infrastructure for sustainable business growth.



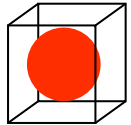
Supply Chain Strategy Consulting

We carefully consider your entire organizational structure. Our data-driven solutions are tailored to your specific business challenges, change management requirements, and future needs.



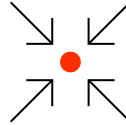
Supply Chain Technology

We select, implement, integrate, and support business management and supply chain execution software.



Distribution Center Design

Whether you're running out of space, operating inefficiently, or struggling with labour costs, we can help you reconfigure or automate your location to drive efficiencies.



Facility Implementation

Build ready-to-use facilities on time and on budget. We handle the entire transition process from RFP to equipment selection and implementation.



LIDD Toronto & ENCOR

LIDD's Toronto office serves as a hub of expertise for the GTA area, delivering innovative supply chain solutions to businesses in the region. The making of this quarter's newsletter involved the concerted efforts of the LIDD Toronto team, in collaboration with our strategic partner, ENCOR, who provided the market insights and cold storage success story.



Rob Renaud

President, Founding
Partner

rrenaud@encoradvisors.com



Mark Petznick

Executive
Vice President

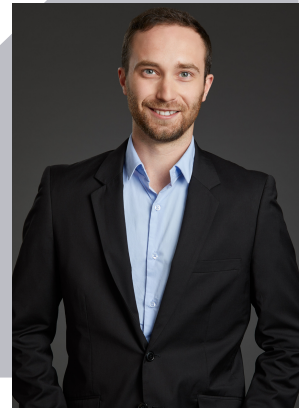
mpetznick@encoradvisors.com



Chris Hagle

Managing Director,
Consulting

christopher.hagle@lidd.com



Vincent Delisle

Manager,
Consulting

vincent.delisle@lidd.com

Contact Us

Learn how to build world class supply chain operations.

Visit LIDD's website or reach out to our industry experts.

+1 (844) 215-7244
contact@lidd.com
www.lidd.com

240 Richmond Street W,
Suite 6-105
Toronto, ON, M5V 1V6 Canada

Follow LIDD on



