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Change is the Only Constant in Last-Mile Delivery

Step Up your Last-Mile Game with Artificial Intelligence

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The Evolution of Home Delivery: A Brief Overview

How often did you step out of your house for shopping in 2020? Thanks to smartphones and smart applications, buying essentials, and even non-essentials during quarantine was not that stressful after all. Online shopping and home delivery apps have made life easy for us, bringing anything and everything to our doorstep.

But how would humans survive the pandemic without the facility of online ordering and home delivery services? It is almost unimaginable, isn't it?

For several decades, supply chains were straightforward, with just a few crucial touchpoints. Goods were produced in the company manufacturing plants, then packaged, and distributed to retail outlets to be sold to consumers.

Even then, supply chain management was not that easy. It involved several steps, including raw material procurement, timely manufacturing, proper warehousing, and transportation of finished goods to stores.

During those days, home delivery was a somewhat restricted activity world over. Only a few things could be delivered to people's doorsteps, such as postal mails and pre-ordered courier packages. And, it took several days to deliver these couriers, and customers usually had to pay a hefty amount if the parcel was heavy or delicate to handle.

Then came the era of E-commerce, bringing in a new dawn in the world of consumerism and home deliveries. The emergence of online marketplaces established new trends in shopping. People could browse and shop anything online, right from books to clothing, fashion products to furniture, and even food and groceries. As E-commerce gradually made its way into consumers' lifestyles, it transformed people's shopping patterns dramatically and increased the importance of home delivery services.

The growth of E-commerce and home delivery of goods and services added another dimension to the supply chain-last-mile delivery for the convenience-seeking consumer. This book digs deep into this last leg of the supply chain and gives valuable insights on how businesses can optimize their last-mile operations with the help of Artificial Intelligence.

Three Major Milestones of a Supply Chain

Before we get into the details of the very last mile of supply chain activities, let us discuss the other major supply chain milestones that precede this step. From the manufacturer's location to the customer's home, goods usually undergo a long journey.

The First Mile

In a typical supply chain, the first step is the movement of goods from the original manufacturing plant or factory to a distribution center or warehouse, where it is stored until it is later transported to retail stores or sold directly in the market. However, the definition of first-mile operations depends mainly on the nature of the industry. For instance, in the case of farm produce, the first-mile journey could be from the agricultural farms to a wholesale market, from where sellers can purchase the product for reselling. In the case of E-commerce, the first mile is usually when packages are transported from the seller's location to the distribution center located in the customer's city.

The Middle Mile

In some industries, such as consumer goods and retail, there could be a need for a middle or secondary mile journey in the supply chain. A secondary mile is the journey of finished products from a warehouse to retail stores or shops for selling to the end consumer. Companies in retail, electronics, FMCG, pharma-ceuticals, and groceries usually have their distribution centers located in major cities, from where they are strategically distributed to small stores in and around the cities, and even rural towns. In this middle mile, sales beat planning plays a vital role in ensuring that retail stores have enough stocks on their shelves and that they're replenished at the right time.
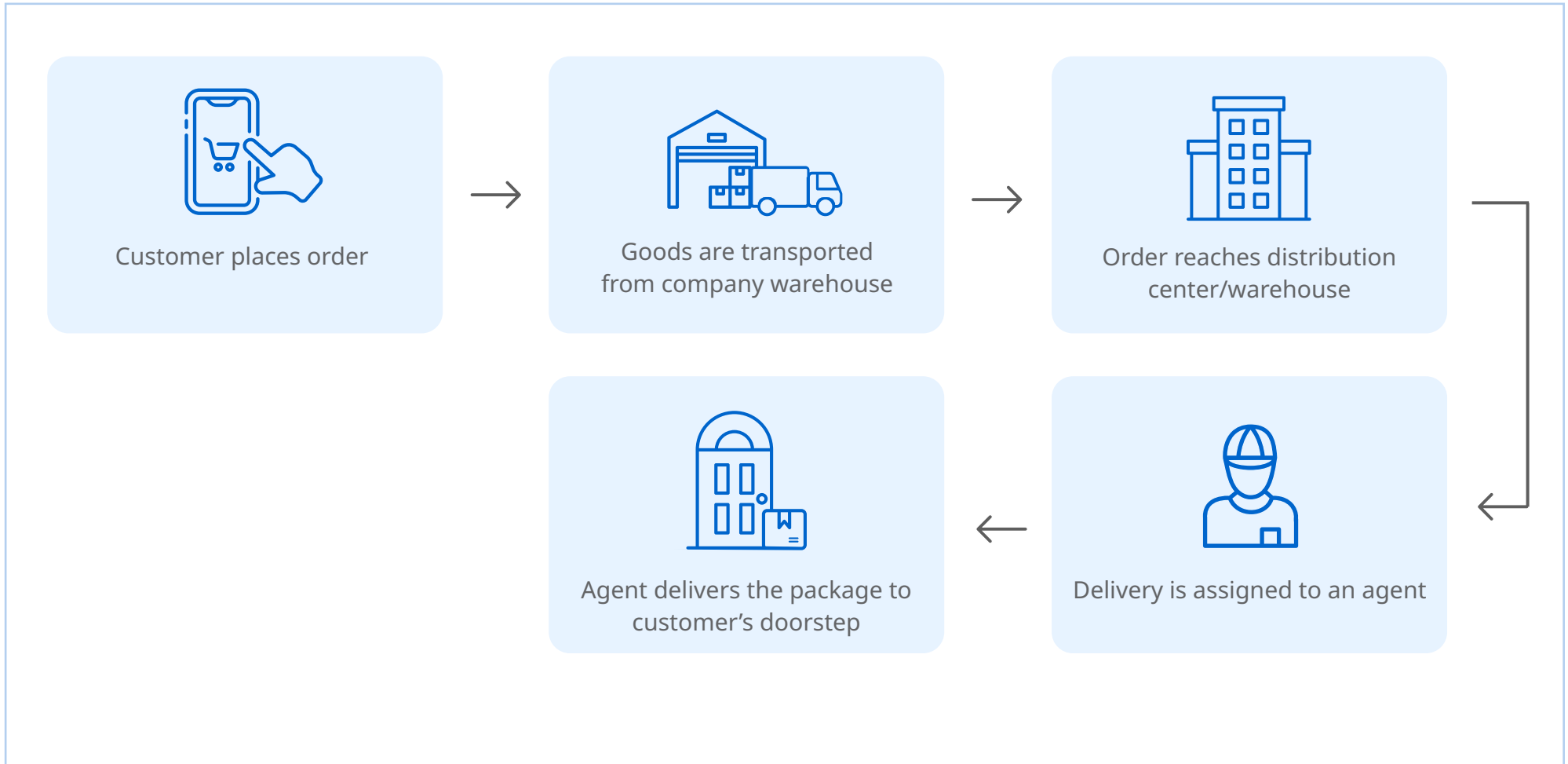
The Last Mile

Due to the emergence of E-commerce and the rising popularity of home delivery, there has been a new addition to the supply chain journey— The last mile or the final mile. This last leg of the supply chain is concerned with the movement of goods from either retail stores or storage centers to the customer's doorstep. In the case of E-commerce, products are usually delivered from distribution centers to customer locations by on-ground agents. In some other instances, such as grocery home delivery, packages are sent from shops to customer addresses. Nowadays, many brands are also selling their products directly to customers, also known as D2C selling, shipping goods directly to customers, skipping both the first and second mile of the supply chain entirely.

Regardless of the nature of your business or the volume of operations, this last mile is becoming increasingly critical for survival in every industry. Last-mile activities are directly associated with the end customer, and largely determine the customer's shopping experience with your brand. It is, therefore, essential to find ways to strengthen last mile operations and revisit your brand strategies to stand out among competitors.

How does Last-Mile Delivery work in E-commerce?

Customer places order

→

Goods are transported from company warehouse

→

Order reaches distribution center/warehouse

Agent delivers the package to customer's doorstep

←

Delivery is assigned to an agent

Why is Last-Mile Delivery So Crucial for Supply Chain Enterprises?

Over the years, several market dynamics, consumer shopping behaviors, and rising competition in the E-commerce and home delivery industry have impacted last-mile operations tremendously.

Online marketplaces have brought convenience to the center stage across all types of businesses, be it food delivery, home services, or retail. With bigger brands like Amazon introducing lightning-fast deliveries, and [same-day delivery](#) offers to their customers, the demand for efficient last-mile operations is only increasing.

Businesses that preferred to continue offline operations are also being pushed to have an online presence to withstand the fierce competition.

Moreover, there has been tremendous growth in the online food delivery market across the globe in the past few years. The growing demand for fast food delivery to customer's doorstep also gave a significant boost to the overall [hyperlocal delivery market](#). From groceries to milk, fresh fruit and vegetables, and even medicines, almost every daily need item is now being delivered by [hyperlocal businesses](#) within a short time, say a day or two.

Not just that, there has also been a significant rise in home services in recent years. At-home salon services, electrician services, housekeeping, gardening, plumbing, and whatnot! Customers can book their preferred home services anytime they want.

These trending and upcoming business models just reinforce the fact that we all know already— It is the era of consumerism, and convenience is the true king! As businesses strive to offer more and more comfort to their customers, there is an evident and increased emphasis on last-mile operations, the last stage of the supply chain, where the brand interacts directly with the end consumer.

In order to survive market competition and fulfill the ever-demanding consumer, supply chain enterprises are left with only one option— optimizing last-mile operations for a sustainable future.

The Four Pillars of Successful Last-Mile Operations

The success of last-mile delivery is not confined to merely ensuring that orders reach the customer's doorstep anymore. It is determined by speed, efficiency, transparency, and, most importantly, a positive customer experience.
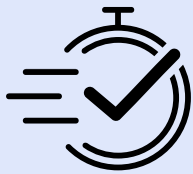
Speed

Speed is the number one rule in the supply chain game today. The Prime membership introduced by Amazon started this new revolution of express deliveries in the world of E-commerce. In fact, customers are happy to pay a premium charge if their delivery can be speedier than usual. 41% of US consumers are willing to pay an additional fee for same-day delivery while 24% of shoppers say they would pay more to receive packages within a one-or two-hour window of their choosing.

Not just that, most online shoppers expect fast and free shipment of their orders. 72% of consumers cite free shipping as their top reason to shop online. The modern customer's growing expectation for faster shipment, same-day, and next-day delivery is always keeping businesses on their toes.

Efficiency
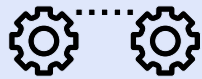
Successful last-mile fulfillment is a result of several small touchpoints, each executed efficiently. This includes effective inventory management, proper order dispatching, smart route planning, rider allocation, and of course, timely delivery of orders to the customer's doorstep. If any of these steps is not carried out with precision, last-mile delivery could be impacted. Deliveries could be either delayed or not up to the customer's expectations.

Another important aspect that indicates efficiency in last-mile operations is how well a company can manage order returns and on-demand deliveries. Therefore, enterprises across industries must focus on improving last-mile efficiencies to ensure excellent customer experience.
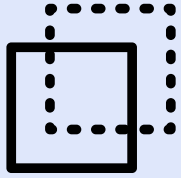
Transparency

Effective communication with the customer is one of the most essential activities in last-mile delivery to ensure a happy experience. Today, the customer expects to be well informed and notified at each stage of the order journey, right from the point the order is placed, till it is delivered at their address.

The ability to keep track of the order journey builds a sense of trust in the minds of customers about the brand. It assures them that their package is being handled professionally, and will be delivered within time.
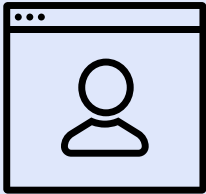
Personalized Experience

Beyond convenience and speed, the customer is constantly looking for a wow factor in the brands they shop with. This wow factor comes from exciting shopping offers, exclusive discounts, and personalized delivery options that take the shopping experience just a notch higher than usual.

Companies are now offering convenient delivery time-slots and preferred home service appointments. The COVID-19 pandemic has also introduced preferred places of delivery, such as curbside deliveries and contactless delivery options, ensuring maximum safety and hygiene standards for customers.

Whether you're an E-commerce enterprise, a local delivery business, or a home services provider, dealing with last-mile fulfillment, you must tick the essential boxes of speed, efficiency, transparency, and personalized offerings to truly win the customer over and ensure their loyalty towards your brand.

# Last-Mile Delivery: A Constantly Changing Landscape

Change is the only constant; in life as well as in last-mile fulfillment. Last-mile operations are constantly governed by emerging trends in supply chain management, logistics advancements, market dynamics, and customer expectations.

COVID-19 has changed normal ways of living and added more pressure on supply chain enterprises to ensure smarter, faster, and more efficient last-mile deliveries for customers.

In this brief period, businesses have come to realize that the only way to remain competitive in this volatile landscape is to be vigilant of the trends that are shaping up the market and adapt to the changes quickly with innovative strategies.

Some trends, in particular, stood out during the disruptive phase of the pandemic, and supply chain enterprises, whether big or small scale, must make a note of these for improved last-mile operations in the future.
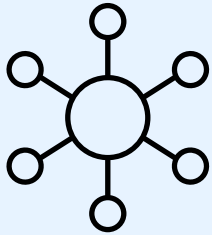
Omnichannel is the way forward

During the pandemic, businesses have come to accept the fact that having an omnichannel presence is an absolute must to survive in the future. As brick-and-mortar sellers step up by embracing online storefronts and adopting electronic payment systems, there is an increased emphasis on efficient last-mile deliveries.

Brands are also introducing Direct-to-Consumer distribution models, shipping products directly to consumers without involving intermediaries. Sellers that have their own logistics systems in place need to optimize last-mile operations, and those who depend on third-party logistics providers to fulfill their end customers must look for improved delivery services.
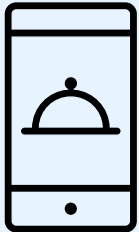
Third-party Delivery Platforms are on the rise

What initially started as a trend in the food delivery business is not restricted to just food any-more. There has been a sudden increase in third-party delivery platforms that deliver not just food from restaurants to hungry customers, but also deliver groceries, essential daily needs, and even personal packages on-demand to customers' doorsteps.

It is a golden deal for storekeepers and restaurants as they can list their business on these third-party platforms such as UberRUSH for parcels, Postmates, Deliveroo, and Grubhub, without worrying about the logistics aspect of the supply chain.

At-Home Services will continue to be in demand

At-home services have been popular for a while now. But thanks to the pandemic for restricting people indoors, home services will continue to be in demand, even in the post-pandemic world. People are booking salon treatments, housekeeping services, home repair, and plumbing services during the pandemic more than ever before. Also, there has been a steep demand in at-home health check-ups and diagnostics services since the pandemic outbreak.

At the same time, people's demand for safe, hygienic, and white-glove home services has risen dramatically. Home service providers must not only improve their last-mile operations in terms of speed but also ensure that every task is carried out professionally with the highest quality standards.
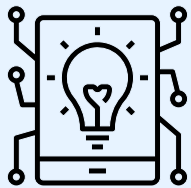
Smarter ways of last-mile distribution are coming up

Last-mile operations may not necessarily mean doorstep delivery. But it certainly means ensuring that the customer receives their order on time and in a manner that suits them the best. During the pandemic, several smarter methods of last-mile distribution have sprung up, indicating that there's a significant scope of improvement for businesses that are still following the conventional delivery methods.

E-grocers and food delivery companies are offering contactless delivery options. Buy Online, Pick-Up In-Store (BOPIS), and curbside deliveries are also trending. To speed up the last-mile delivery, many businesses have embraced pop-up distribution centers and hub-and-spoke models for greater convenience.

Logistics SaaS is booming

Handling last-mile logistics is not a cakewalk, especially with peak order volumes and changing market dynamics. Technology implementation in last-mile logistics is gaining momentum across industries, and there has been a significant boost in the adoption of SaaS-based logistics software.

Logistics SaaS has many advantages for businesses. It is easy to implement and doesn't involve high set-up costs. It is managed on the Cloud and can be scaled up or down based on business requirements. In the coming years, there will be increased adoption of logistics SaaS for improved last-mile fulfillment.

Last-Mile Optimization with Artificial Intelligence

Last-mile delivery is the final step in the supply chain and certainly the most crucial one. This is the stage where your brand interacts with the buyer. What the buyer experiences at this stage could lead to good or bad customer experience, determining whether or not s/he will shop with you again. To stand out as a brand, businesses must, therefore, focus on enhancing their last-mile capabilities. But how do you achieve excellent last-mile fulfillment without incurring heavy costs of operation?

Implementing technology and Artificial Intelligence-led last-mile solutions in your supply chain could go a long way. Smart tech does not only optimize your last-mile operations but reduces human dependency significantly and saves you valuable time and costs involved in manual processes.

Although supply chain decision-makers might consider investing in Artificial Intelligence for last-mile operations as an added expense, it is actually an investment that can fetch great business results in the long run. Today, enterprises across retail, E-commerce, grocery, and consumer goods are turning to AI to optimize their last-mile logistics.

Accurate Geocoding

Last-mile deliveries can get complicated, mainly when customers write unclear, ambiguous addresses, and when distributions are to be done in remote locations. With the help of Machine Learning algorithms-led geocoding, even the fuzziest of the addresses can be converted into precise geographical coordinates on a map.

Accurate geocoding helps delivery executives and riders reach delivery destinations faster, leading to improved productivity on-ground and a higher First-Attempt Delivery Rate (FADR).

## Route Planning and Optimization

When planning deliveries manually, logistics planners have to spend hours gathering order data for planning daily dispatches and assigning delivery routes. Advanced route planning software takes into account real-life constraints such as traffic congestion and zone-based navigation, offering the shortest and the most optimal routes for hundreds of deliveries in a day.

Optimizing routes with the help of AI reduces human intervention in the dispatch planning process. This improves accuracy, saves fuel costs, and planning and delivery time.

Intelligent Parcel Sorting

Businesses involved in E-commerce shipping and consumer goods delivery understand the worries of manual parcel sorting very well. Manual sorting of packages is both time-consuming and error-prone. With [intelligent parcel sorting software](#), each parcel can be segregated according to size, nature, delivery area, and assigned to the right delivery executives. The entire process is automated, with little or no human dependency, thereby increasing accuracy and speeding up the shipment process.
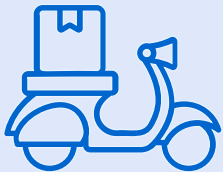
Smart Rider Allocation

Smart logistics planning software helps in assigning delivery duties and distribution tasks to the best-suited riders, considering their tribal knowledge, area preferences, and delivery expertise. This is especially helpful for the on-demand home delivery providers to find and assign riders within the delivery area and execute orders quickly.

Enhanced Last-Mile Visibility

One of the most sought after features of any home delivery service is live order tracking and shipment monitoring. [Real-time fleet tracking software](#) helps logistics managers in keeping a close eye on day-to-day on-ground operations and raises a red flag in case there is any deviation from planned delivery tasks.

At the same time, it allows the end customer to keep track of their order status, and have complete knowledge of when and how their package is being shipped and delivered at each step. Real-time order tracking improves the overall visibility of last-mile operations, improving supply chain performance significantly.

In Conclusion

Change is the only constant in last-mile logistics. The trends that are emerging in the year of the pandemic are most likely to reshape the future of last-mile operations in the days to come. Logistics decision-makers must study these trends and revisit their last-mile strategies to build a strong brand presence in the market and achieve the four essentials of last-mile success— speed, efficiency, transparency, and improved customer satisfaction.

AI-driven technology, especially SaaS-based logistics solutions, will play a significant role in optimizing last-mile delivery operations across industries and geographies. Businesses must take cues from the ongoing dynamics in last-mile logistics and prepare for the future with technology by their side and more agile last-mile strategies.

Looking for last-mile optimization for your delivery business? Get in touch with our logistics experts and fine-tune your last-mile deliveries today.

Get in touch now!

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