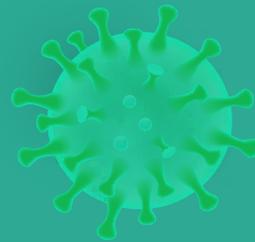




What Will Last-Mile Delivery Look Like Post Coronavirus?



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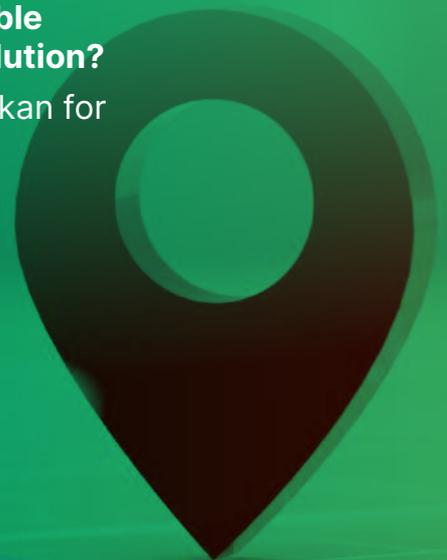


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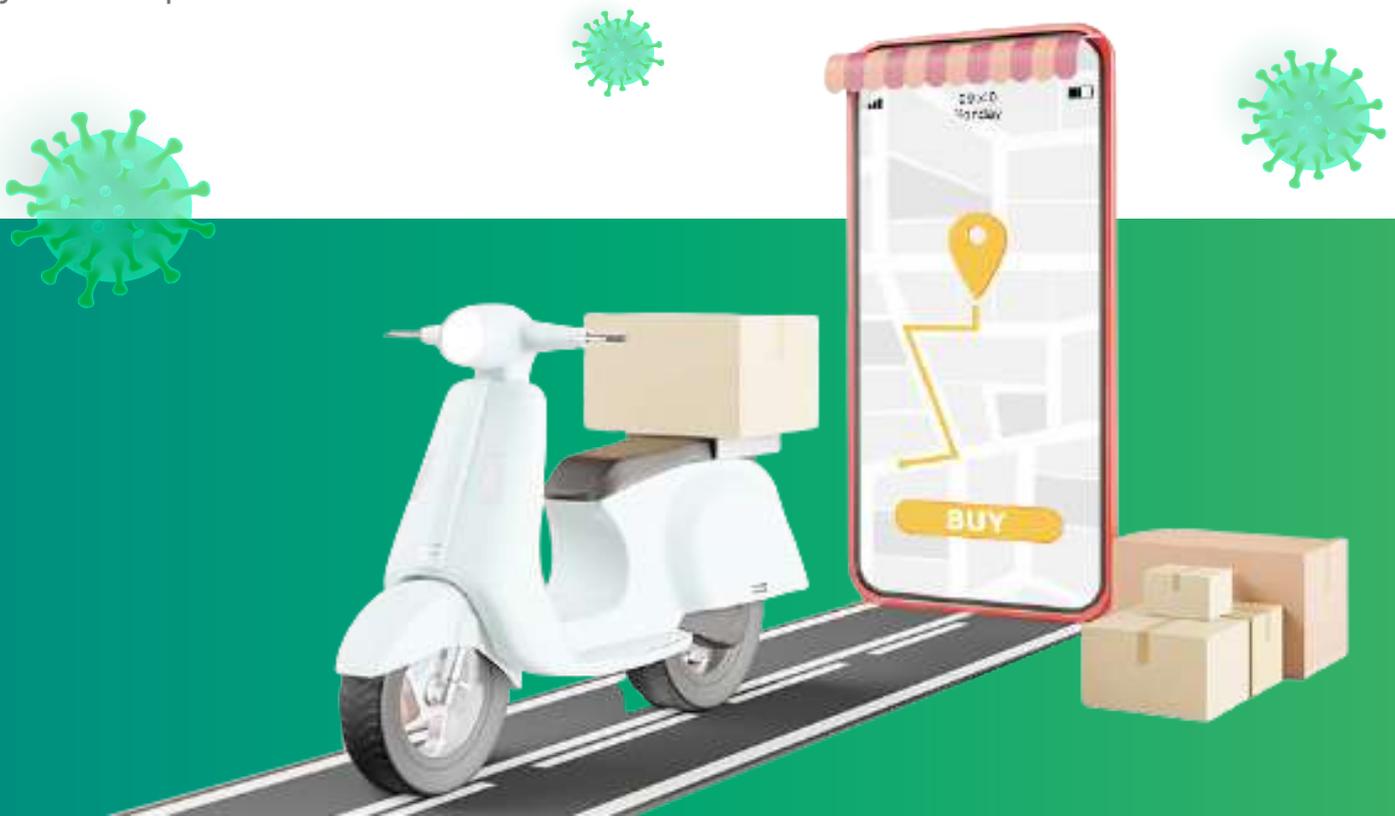
Introduction

When the pandemic hit the world in 2019, many businesses were not ready for the negative impacts of such a devastating event. Many offline retail stores and small businesses were clueless about coping with the need for an online delivery module and changing customer preferences.

Online sales skyrocketed due to restrictions of physical presence in many countries. In the US, online sales surged to \$73.2 billion in June 2020, with a year-on-year growth rate of 76.2%. However, what can be said to be an advantage to eCommerce businesses, turned out to be, in fact, a massive challenge.

The weakening workforce, lack of inventory, manufacturing backlogs, and sourcing issues put pressure on the existing last-mile delivery systems. Amongst the more significant challenges was that of ensuring uninterrupted last-mile delivery operations when consumers preferred to stay at home.

While reliable last-mile software solutions can be expected to meet the current needs of eCommerce businesses, the question remains as to what solutions will work in the post-COVID era? So, here we are with the challenges of the pandemic, and solutions that will go beyond the COVID-era along with the top features that can enhance your operational capabilities. Let's start first with the evolution of last-mile delivery and its landscape beyond the pandemic.



Chapter 1

Last-Mile Delivery: An Evolution That Changed the Supply Chain Forever

The post and parcel businesses are looking at a grim situation due to the advent of last-mile delivery. Since the evolution of last-mile delivery, the on-demand economy has seen a massive boost due to faster deliveries and improved user experience.

ECommerce organizations have also benefited from the evolution of last-mile delivery. A survey from Accenture suggests that more than 50% of global eCommerce purchases are delivered from a local hub or inventory, which will reach 70% by 2025.

Last-mile delivery is a process of delivering goods from the local distribution hub or inventory to the customer's location. It is often referred to as the last phase of a supply chain that includes the first two phases dealing with the transfer of goods from a manufacturing plant to the local distribution hub.





1.1 Last-Mile Delivery: From Tanks to Drones

The World War 2 success of the US armed forces is also credited to the massive inventory storage and mass production of mission-ready weaponry. However, the focus on the evolution of supply chain and inventory was not on the minds of many logisticians until the revolutionary take by Ohio State University professor Bernard J. (Bud) LaLonde, who stressed improvements in deliveries to enhance user experience.

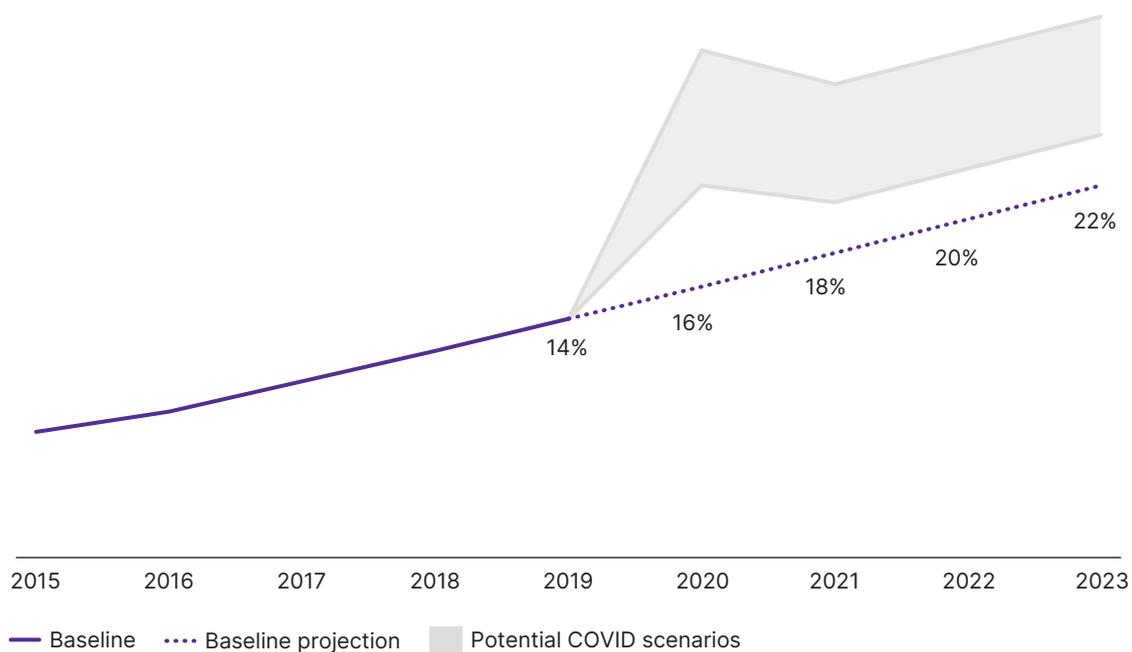
Modern-day last-mile delivery systems are adopting automation and innovations like drones, which will revolutionize the way we see the delivery of goods. From the trial runs in 2013 to getting FDA approvals in 2020, Amazon's Prime Air Fleet of Drones is a giant leap in evolution in the last-mile delivery.

However, the journey from tanks to drones has not been so smooth, as last-mile delivery was not so popular until the 2000s, when eCommerce firms started pushing for evolution in supply chains. 2020 was the year when last-mile delivery saw a massive surge in adoption due to the pandemic. A 52% increase in the online orders for groceries with a 26% rise for store-based retailers shows how last-mile delivery is more than just a measure to make ends meet for eCommerce businesses during the pandemic.

Adoption of last-mile delivery, and its evolution, is not limited to the pandemic but will continue post-COVID. Organizations and enterprises must focus on going beyond the present surge in demands to ensure a smoother transition.

1.2 Last-mile Delivery: Beyond The Pandemic

Developing a last-mile delivery solution should not be just about leveraging the pandemic and incorporating future-proofing. As we move towards the new normal, customers' expectations for faster deliveries will rise without a will to pay extra. However, there has been a change in customers' behavior in terms of willingness to pay for the safety of the delivery.



Source: eMarketer/Statista

The eCommerce economy is on the rise. The total contribution of the eCommerce businesses in the retail market was 16% in 2020 and will continue to rise to 22% by 2023. As we move beyond the pandemic, the eCommerce business will need advanced last-mile delivery solutions to cope with customers' demands.

Here, eCommerce businesses can work on modernizing the alternative approaches to traditional last-mile delivery. For example, the following three significant alternatives are existing in the retail market that can be leveraged to reduce the pressure of delivering the goods faster at high costs:

1. Locker Hubs:

It is an approach whereby the customer receives their packages in a locker hub created nearby. They can easily pick up their products through the digital key provided on the eCommerce platform. Locker hubs can be offered for free as they will help reduce the pressure on last-mile delivery and decrease operational costs.

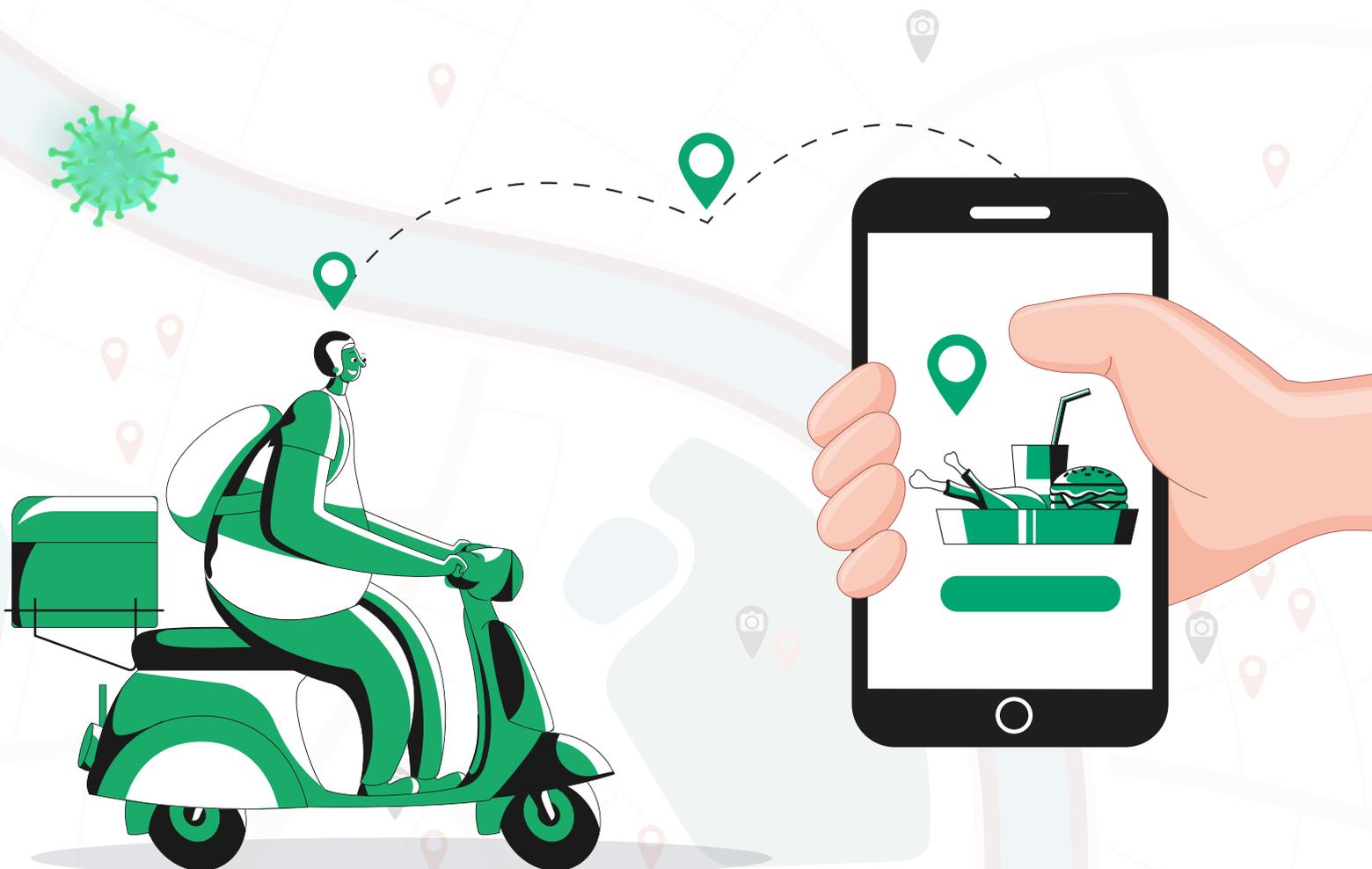
2. Curbside Pickup:

Curbside pickup is another alternative approach from the popular click-to-collect models that can fuse contactless delivery with cost-effective operations. With this model, eCommerce and online retail stores can have a specific location in the nearby areas of a customer's location as a drop-off point from where they (customers) can pick up their goods.

3. BOPUS:

Buy Online and Pickup from Store (BOPUS) is not a new model, as many food delivery businesses use this approach. eCommerce businesses can leverage such models to reduce the pressure on their existing last-mile delivery systems and manage to gain more profits per delivery due to low-cost operations.

The alternative models, automation, and innovations will boost last-mile delivery solutions to cope with high customer expectations. Integrating technologies like Artificial Intelligence and Cognitive Computing will help firms enhance route optimizations to make deliveries faster on lower OpEx (Operational Expenses).





Chapter 2

Challenges of Last-Mile Delivery Due to the Pandemic

The pandemic has worked as a catalyst for the last-mile delivery approach. As the demand for on-demand services and eCommerce business saw a massive surge in the COVID-era, the challenge of coping with customer's expectations is growing. Organizations with in-house last-mile delivery have been at an advantage due to existing infrastructure against the offline retailers trying to adopt the approach.

According to experts and peers at the Home Delivery Event in 2020, the increase in fleet assets among last-mile delivery firms has grown by 10-40% during the pandemic. The challenge of faster deliveries, low-cost operations, and changing customer behavior is putting a strain on the existing last-mile delivery ecosystem.

2.1 Sourcing Problem

Procurement and inventory have been a massive problem during the pandemic. As the new normal sets in and social distancing norms dictate supply chain operations, sourcing components, labor, and keeping tabs on inventory have been difficult. Every business has been bleeding cash, coping with the situation, and yet there has been a negative business impact for several domains.



Consumer Electronics

We have been forced to raise prices

42%



Healthcare

We have seen delays in our production delivery or time-to-market

71%



Retail

We have lost revenue

37%



Energy & Industrial

Our profit margins have narrowed

54%



Telecommunications

We have struggled with quality issues as we investigated options

33%

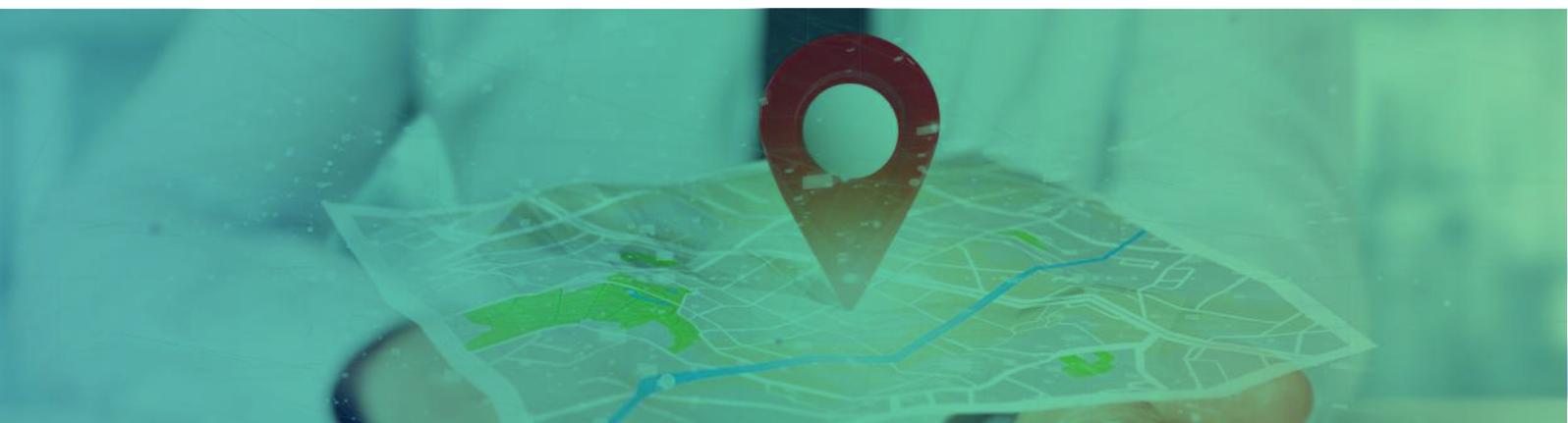
According to a survey, the healthcare industry had a significant impact on its operations due to disrupted supply chains. At the same time, 37% of respondents from the retail sector have admitted to loss of revenue due to sourcing issues.

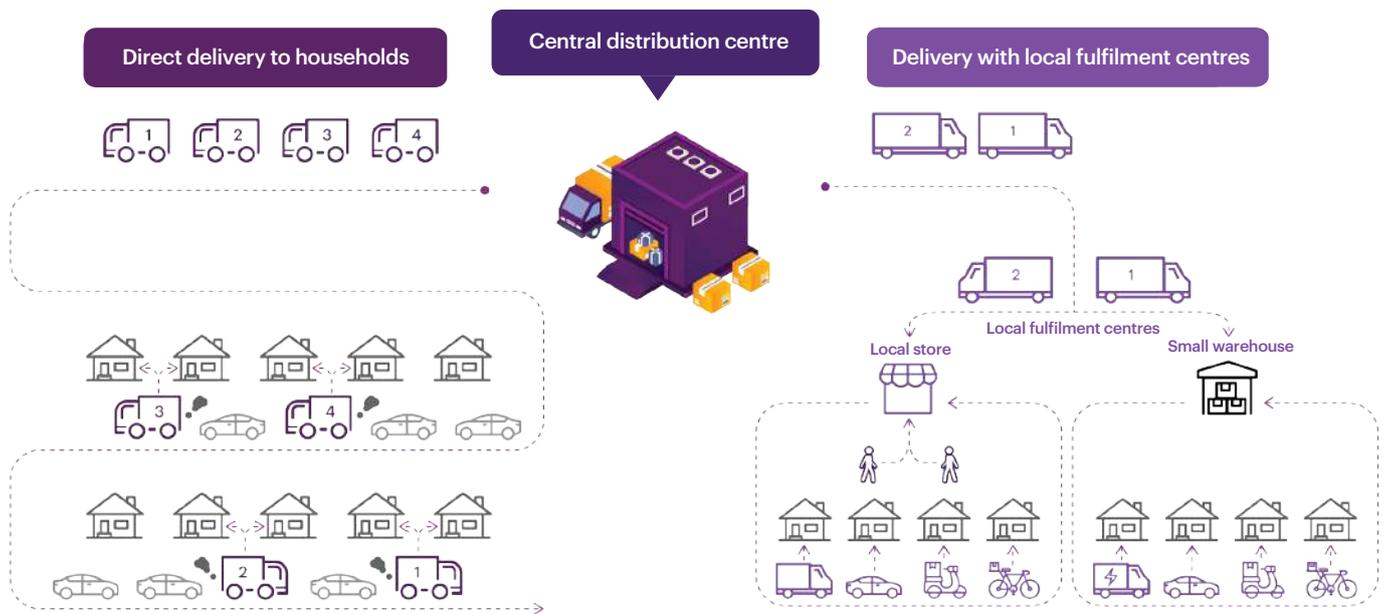
The challenge of mitigating sourcing issues and coping with the increasing demand of consumers is perplexing. However, organizations from different verticals can leverage innovative last-mile delivery software solutions for inventory management and timely procurements to handle resource scaling as per the demand.

2.2 Local Fulfillment

One of the most significant impacts of the pandemic on last-mile delivery is the local fulfillment. While giants like Amazon have been at an advantage due to massive investments into micro-fulfillment centers and local distribution hubs close to customer's locations, other players have faced local fulfillment challenges.

However, the disadvantage of a brick-and-mortar retail stores can be transformed into an advantage through last-mile delivery solutions built around the local fulfillment approach. The fulfill-from-store model has seen a rapid adoption during the pandemic as more retailers are creating an omnichannel fulfillment strategy for their operations.





The local fulfillment approach leverages the local stores and small warehouses as a part of the micro-fulfillment network. At the same time, direct delivery networks suffer from problems like higher fuel costs, slower deliveries, and higher packaging costs. As the local fulfillment model does not need to handle products during a longer transit route, the packaging needs are reduced. Also, requirements for heavy transport vehicles are minimized for local distribution, which is cost-effective.

Though the local fulfillment approach is an excellent option for offline retail stores, managing assets on this scale makes it challenging. This is why many organizations are now looking to develop customized last-mile delivery solutions that can help manage local fulfillment operations.

2.3 Contactless Delivery

Last-mile delivery has revolutionized customer engagement due to faster deliveries, and most importantly, the inclusion of proof of deliveries. With the need for contactless deliveries due to the pandemic, the proof of delivery has become challenging to manage. The level of customer engagement has reduced due to contactless delivery, and at the same time, the technology for the proof of delivery needs to be enhanced.

Organizations can leverage last-mile delivery software to help with real-time proof of delivery features to boost contactless delivery. Two-factor authentications can be used as proof of delivery by sending an OTP or code to the customer's phone, which helps the delivery person verify receipt.

To ensure real-time OTP notifications on the customer's phone and an equally responsive proof of delivery feature in the delivery agent's app, you will need a reliable tech stack.

2.4 Workforce Management

COVID has already been so devastating that the workforce for eCommerce businesses is crippled. Major eCommerce giants like Doordash and UberEats have been the guardian angels for struggling restaurants. However, the shortage of delivery drivers has been a significant concern for restaurants, eCommerce platforms, and on-demand services.

The best way to deal with workforce shortage is by ensuring efficiency in assigning tasks and orientation of delivery agents. Intelligent last-mile delivery solutions can significantly benefit eCommerce and on-demand delivery businesses through features like automatic assignment orders.





Chapter 3

Top Features of Last-Mile Delivery Software Beyond Pandemic

The challenges of coping with the surge in demands for faster delivery, changes in customer behavior, and order management need some advanced features in your tech stack. eCommerce businesses can rely on a last-mile delivery solution for innovative features.

3.1 Smart Order Management

Organizations can leverage a smart order management feature that can offer integration of advanced tracking and shipping features. RFID or Radio Frequency Identification is an excellent option for eCommerce businesses to track their assets in real-time and manage the inventory better. An eCommerce business also needs a reliable last-mile software solution to create custom APIs or Application Programming Interface.

APIs will help access data from RFID tags and offer information for order management. A bar code is considered to be an alternative to RFID. On the contrary, bar codes have constraints that are redundant in RFID. For example, reading bar codes needs manual scanning, which can be difficult, especially in the middle of a pandemic.

With an RFID-based last-mile last-mile delivery solution, you can:

- Have active or passive RFID readers to track assets on the move.
- Create a network of essential checkpoints that track every package.
- Leverage computing power to process the RFID data and offer vital analytics.
- RFID tags can also help enhance the proof of delivery feature through automatic scanning.

3.2 Analytics Feature

The smart analytics feature will help your business track essential data on operations, costs, and revenues. With an intelligent analytics feature, eCommerce businesses can monitor important KPIs and understand the ROI.

A rich analytics interface will enhance your accounting systems and tracking abilities. Data on fuel costs, delivery delays, ETAs, and failed deliveries will be beneficial to improve the efficiency of the last-mile delivery system. The information you get can be integrated into the tech-stack and operations to meet the rising demand for delivery excellence beyond the pandemic.





3.3 Navigational Features

Route optimization is not only about skipping traffic and faster deliveries but also about reducing fuel costs. So, investing in a route optimization feature will help your business with faster deliveries and at the same time save some cash when the pandemic is slowing down the economies worldwide.

Another benefit that you can get from a smart feature like route optimization is reducing the delivery of damaged products. As the feature enables a delivery person to use an optimal route, the transit time is shortened, and the chances of mishandling products are reduced.

3.4 Auto-Allocations

An innovative last-mile delivery solution can help you automatically allocate a task to a delivery person. This is helpful for a firm dealing with a shortage of delivery agents, as intelligent software solutions can help prioritize task allotments.

With an intelligent dashboard, you can have all the information on each task automatically added. As you add different profiles for delivery agents, the allocations are prioritized based on the nature of the task, location, and other factors.



Chapter 4

How Tookan Helps With a Reliable Last-Mile Delivery Software Solution?

Tookan is an intelligent last-mile delivery solution that can help your business overcome the challenges of the pandemic and changing customer behavior. It is an advanced software that offers features like auto allotments of delivery tasks, order management, and route optimizations.

The best part about Tookan is the level of customization that you can achieve according to your operations. With custom API integration, customizations become easy.

4.1 Advantages of Choosing Tookan for Your Last-Mile Delivery System:

- Smart tech-stack for delivery agents and customers with real-time communications.
- Advanced algorithms for ETAs and route optimizations.
- Pre-built maps in the agent app with intelligent navigational features.
- Real-time updates on orders and tracking features.
- Unified dashboard for admin with advanced analytics.
- Ratings and Review management features.
- Central console or dashboard for order management with automatic addition of delivery tasks.
- Auto-allotment based on task priority, customer's location, and ETA.
- Live chat feature for two-way communication for pickup and delivery.
- Multiple payment options and gateway integrations.
- Advanced proof of delivery features for your business.
- Flexibility, scalability, and ease of last-mile delivery management.

CONCLUSION

The pandemic has been more than a mere tragedy. It has made us evolve further into the digital realm. The boost to last-mile delivery adoption due to the pandemic has set the eCommerce economy rolling onto a bumpy road, where there will be challenges. However, overcoming such challenges will not be impossible for enterprises due to automation, innovation, and research in advanced software logistics.

As the innovations move forward in hardware through sensor-based technology, RFID tags, or even the Internet of Things, businesses will need a reliable tech stack. Tookan is one such last-mile delivery software solution that has been at the forefront of enabling all business sizes with intelligent tech-stack.

So, if you are looking to leverage a last-mile delivery system for your business, Tookan is the right software solution. Contact us here for more details and any doubts you have about Tookan.

