



DESCARTES™

Best Practices for Last Mile Delivery

Strategies and technologies for seamless delivery experiences



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Best Practices for **Last Mile Delivery**

Modern delivery strategies have transformed logistics from a cost center into a powerful, revenue-generating competitive advantage for both B2C and B2B companies. Features that were once cutting-edge are now basic operational requirements, leaving businesses that fail to adapt at a distinct disadvantage. Success depends on abandoning traditional logistics models and embracing advanced technology to optimize the end-to-end customer experience, regardless of company size. By adopting this forward-thinking vision, organizations can effectively leverage last-mile delivery as a strategic weapon to outpace the market.



**CUSTOMER
EXPERIENCE**



**DELIVERY
PRODUCTIVITY**



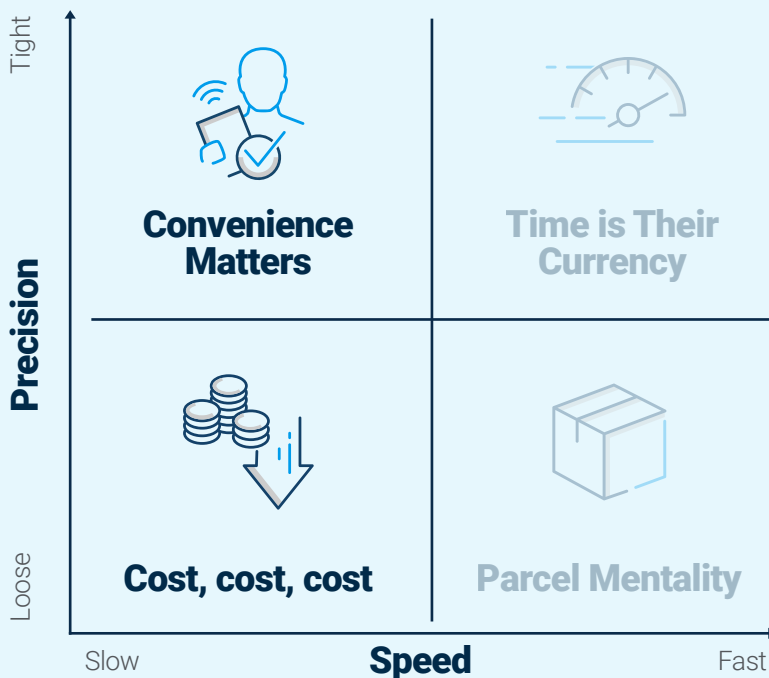
REVENUE

**Best in class delivery
companies accomplish
these three goals
simultaneously**

Customer Delivery Personas

There is a class of customers who are cash rich and time poor or have an urgent need. They want their delivery ASAP and wait all day for it. This can be, for example, high-value, impulse purchase goods, replacement items or even building materials. These customers are also most likely to pay for the privilege and it doesn't take too many of them to offset a lot of the overall delivery costs.

There are four delivery personas



Different buying and delivery personas

Understand delivery personas to dramatically:

- Improve customer experience
- Increase revenue
- Reduce costs

Let customers self-select their delivery service

A few premium services make a big difference

Convenience Matters

Many large format items fit into this category. These customers don't value fast; they value a tight time window. For instance, a kitchen renovation might require five appliances to be purchased, but the customer won't want delivery the next day because they would consume the garage for weeks until the kitchen was ready for them. Instead, the appliances need to be delivered on a specific date and time in the future when the contractor is ready to install them.

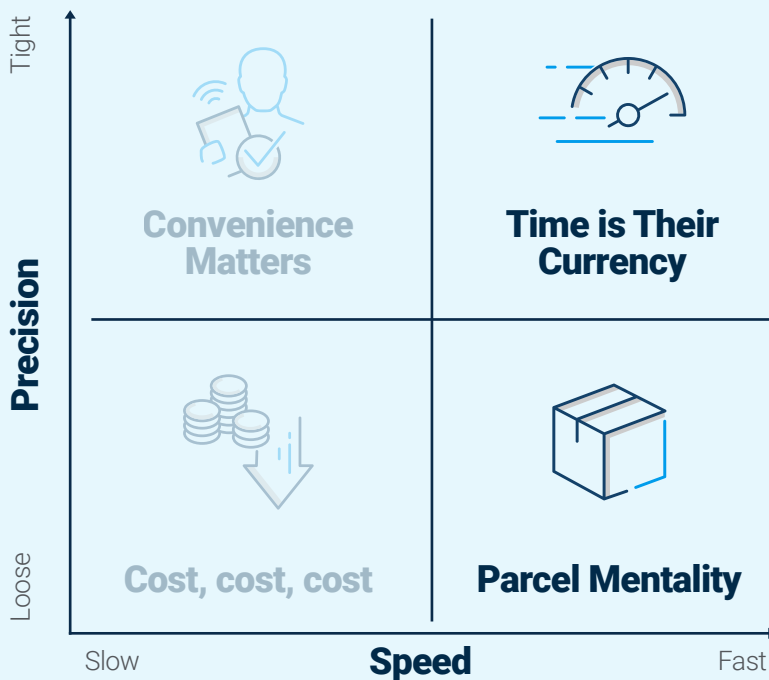
Cost, Cost, Cost

This is a self-explanatory delivery choice. These customers are extremely cost-conscious and will take the slowest delivery service if it saves them money. They are willing to wait days for the product and care less when the delivery will arrive during the day.

Customer Delivery Personas

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Time Is Their Currency

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Parcel Mentality

Typical parcel deliveries are fast, but not necessarily time definite at the point of purchase. Most goods such as apparel and other smaller items are delivered this way. These customers are happy with the fast delivery cycle and don't care if the package is left at the door sometime during the day.

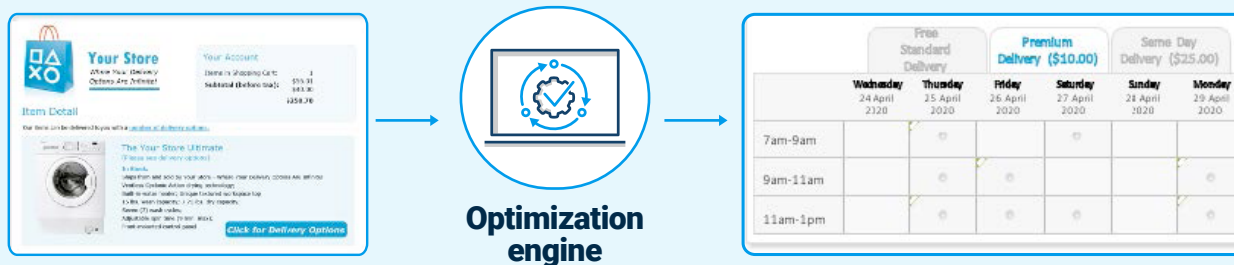
Dynamic Delivery Appointment Scheduling

Success starts during the ordering process where there is the greatest opportunity to influence the customer to take delivery appointment options that benefit the seller. Every delivery appointment booking is unique and depends not only on the customer's order, but also all of the existing orders. Providing delivery options to fit the delivery personas is critical to creating a differentiated customer experience and increasing revenue. There is no reason, however, that the options presented cannot also benefit the seller, reducing costs and maximizing delivery capacity.

Dynamic delivery appointment scheduling provides multiple options simultaneously and allows the seller to present these during the buying process. Each delivery option is scored for best delivery performance for the seller, so the seller can determine in real-time which options to present to the customer. Because the options are dynamically generated, they can be unique to the customer type, size of sale, etc. and the seller can display the options that potentially meet the customer need and are the most economical for the seller—hence the concept of profitable choice.

Dynamic delivery appointment scheduling eliminates infeasible deliveries by only showing customers viable options, using real-time optimization technology that factors in road networks, vehicle capacity, operational rules, and existing orders.

Dynamic delivery appointment scheduling



What

- Dynamically generates delivery appointment options during the sale

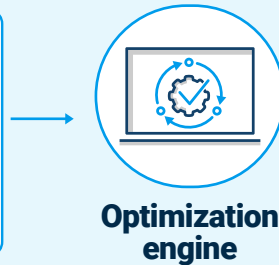
Why

- Offer lower cost to deliver options
- Create delivery density
- Eliminate unscheduled/infeasible deliveries
- Sell premium delivery services

Multiple Time Windows

Part of the delivery persona strategy is to offer different delivery options and generate incremental revenue from the customers who are willing to take premium options. Typically, premium delivery options are those that are the fastest and/or have the greatest precision such as same-day or 1-hour time windows. It doesn't take a lot of customers to generate millions in incremental revenue. A review of companies who have used this technique indicates that 20% - 25% of their customers pick premium windows or expedited services.

Multiple Time Windows



	Free Standard Delivery		Premium Delivery (\$10.00)		Same Day Delivery (\$25.00)	
	Wednesday 24 April 2020	Thursday 25 April 2020	Friday 26 April 2020	Saturday 27 April 2020	Sunday 28 April 2020	Monday 29 April 2020
7am-9am						
9am-11am						
11am-1pm						

What

- Generates multiple delivery options that are based upon their perceived value to the customer

Why

- Provide choice to meet customer delivery persona needs
- Create opportunity to upsell value and drive revenue
- A 20% uptake may result in millions in incremental revenue

Customer Steering

A customer's delivery choice can be influenced to the benefit of the seller. One steering approach is the "eco delivery". Many customers want to buy from sellers who want to help improve the environment. Eco delivery time windows are delivery options that are adjacent to existing delivery appointments and hence require less distance and fuel to execute. Less fuel means less carbon dioxide in the air and hence more ecologically friendly. The delivery options returned with the highest scores are the most economic and ecologically friendly. Because of the shorter distance to make the delivery—typically by ~20%—eco deliveries are the most cost effective. Eco deliveries are a win/win choice for customers and sellers.

Customer Steering

Eco deliveries average 20% less distance per delivery

	Wednesday 24 April 2020	Thursday 25 April 2020	Friday 26 April 2020	Saturday 27 April 2020	Sunday 28 April 2020	Monday 29 April 2020
7am-9am						
9am-11am						
11am-1pm						

What

- Steer customers to delivery appointment options that benefit the company

Why

- Reduce delivery costs
- Feature premium services

Example: Eco delivery "We happen to already be delivering in the neighborhood; wouldn't you like to help the environment..."

Dynamic Pricing

Dynamic pricing is a combination of customer steering and premium services where the cost of the delivery window is determined based upon the scores of each delivery slot. Dynamic pricing allows the seller to better reflect the cost of each delivery option to the customer, and factor in available capacity in a geography to sway the customer to or from that delivery option. For those customers who value a particular time window regardless of cost, dynamic pricing helps maximize the revenue opportunity.

Dynamic Pricing

Choose a Fitting Date & Time

☒ **2 Hour Slots**
from €4.50

☐ **4 Hour Slots**
from €3.00

☐ **All Day Slots**
from FREE

← Sep 5th - Sep 9th →

	Thu 5	Fri 6	Sat 7	Sun 8	Mon 9
8m – 10am	Slot Taken	€ 12.00	€ 12.00	€ 12.00	€ 12.00
10am – 12pm	Slot Taken	€ 12.00	€ 12.00	€ 12.00	€ 12.00
12pm – 2pm	€ 8.00	€ 12.00	€ 4.50	€ 12.00	€ 12.00
2pm – 4pm	€ 15.50	€ 12.00	€ 4.50	€ 12.00	€ 12.00
4pm – 6pm	€ 15.50	€ 12.00	€ 12.00	Slot Taken	€ 12.00

What

- Dynamically assign delivery prices based upon Descartes Reservations™ slot scoring

Why

- Correctly price delivery slot options
- Steer customers to improve delivery density

Value-added Services

During the buying process there is an opportunity to upsell delivery-related services that can drive additional revenue and even increase product sales. Value-added services, for example, could be installation and removal. Value-added services can also make the related product buying decision much easier and, therefore, create an opportunity to sell more products. For example, value-added services like installation may remove a buying concern for something large and complicated like a 55" television that a customer would like wall mounted. With 1-click, a customer can include installation in their purchase and have the service automatically scheduled. Descartes Reservations™ makes incorporating and automating booking possible for value-added services because it has the ability to model the time required for the service at the customer location and include it in the matrix of delivery options returned. Value-added services can also be combined with premium time windows to maximize delivery-related revenue.

Value-added Services

LED HD 1080p 3D Smart TV, 55"
w/ Voice Control



\$ 1,299.00

★★★★★
4.8/5 [41 Reviews](#)

Additional services

5 years guarantee included

☐ Television Disposal **\$10.00**

☐ Standard Large Screen TV Installations **\$75.00**

☐ Large Screen TV Wall Mount Installation **\$175.00**

[> More service details](#)

QTY

1

Add to Basket

What

- Incremental delivery-related services Example: Tabletop versus wall mount TV installation

Why

- Increase delivery-related revenue
- Increase product sales

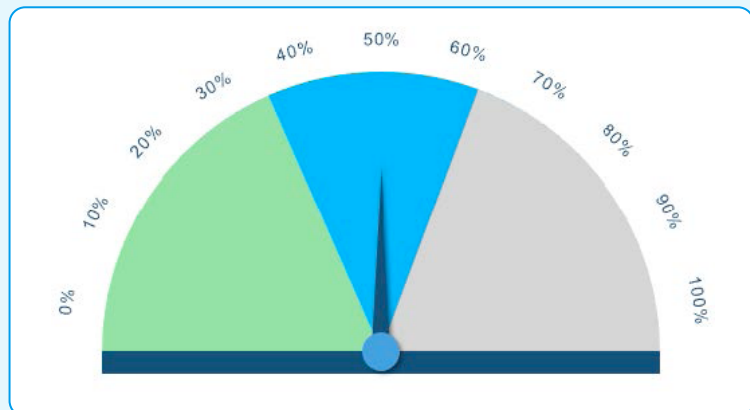
Demand Shaping

Ensuring that demand and delivery capacity are in sync is critical to providing a superior ecommerce customer experience. In many businesses, delivery capacity is capped as trained resources (e.g., installers) are finite and the work cannot be shared with others. In addition, the marketing costs associated with generating excess demand are wasted and unnecessary. Using delivery capacity utilization to tune online marketing programs like pay-per-click (PPC) can help ensure that demand does not exceed capacity or identify geographies that have underutilized capacity. Capacity utilization information over the planning horizon can be used as part of marketing demand generation algorithms to continually adjust marketing programs to maximize revenue, but not overrun delivery capacity.

Demand Shaping

Pay-per-click demand generation

Tuned via route capacity utilization



What

- Use delivery information to influence demand generation

Why

- Optimize demand generation costs, minimize capacity overruns or entice customers to underutilized capacity

Same-day Optimization

In many industries, same-day delivery is a requirement or becoming the new differentiating point. It can, however, be very expensive and not precise. Same-day optimization combines dynamic delivery appointment scheduling with the real-time GPS-based status of vehicles in the field. It allows customers to offer time-definite same-day delivery in the most productive way. Same-day optimization lets fleets take in orders with later cut-off times and provide more dynamic or premium customer service options. It dynamically books delivery appointments on the live dispatch schedule and considers real-time GPS-based information to optimize fleet utilization in conjunction with the customer's delivery window requirements. All of the updates and changes to the route, stops, and service activities are available in real-time to the drivers on their handheld device to keep them in motion and as productive as possible.

Same-day Optimization



**Delivery Appointment
Requests & Confirmations**



**Dispatch
Schedule**



**Real-time GPS-based
Delivery Updates**

What

- Time-definite same-day appointment scheduling based upon real-time fleet status

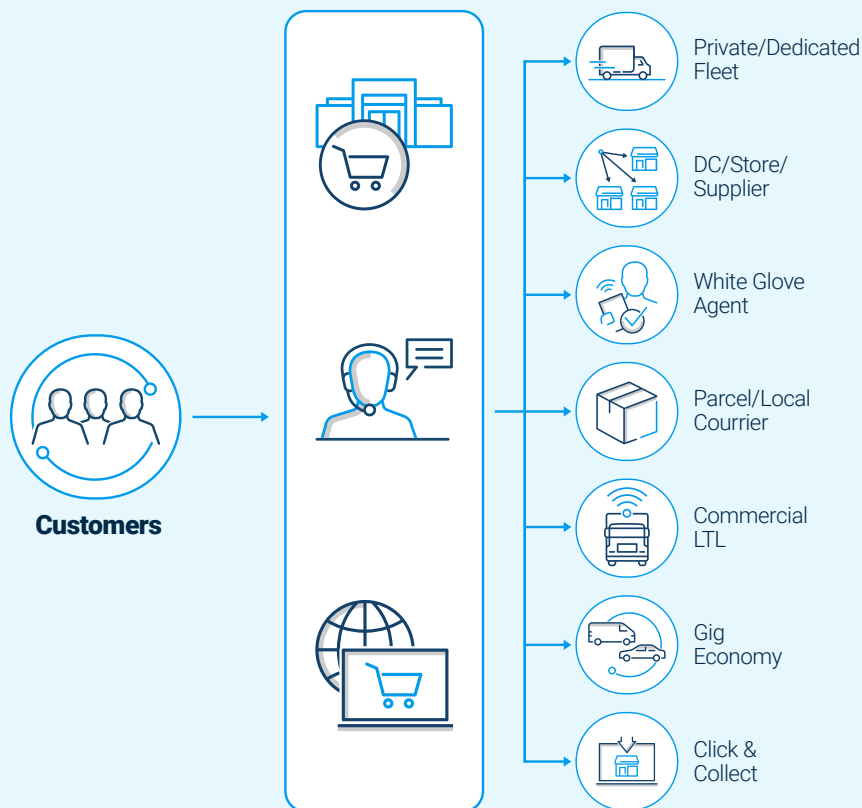
Why

- Maximize resource utilization
- Maximize customer service
- Provide a premium delivery service

Omnichannel Delivery

Home and last mile delivery can be very complex as products, geography, sales volume and service levels drive the choice and number of delivery modes. Many companies make arbitrary delivery mode choices that appear disjointed to the customer and do not offer the best possible service or represent the lowest possible cost to the seller. Using Descartes Reservations as the delivery appointment booking scheduling solution for all modes unifies the delivery process for the customer, allows the seller to offer a superior customer experience, and minimizes delivery costs. Descartes Reservations can make complex multimodal delivery decisions in real-time during the buying process. The solution can orchestrate and communicate planned deliveries to the best mode to make the delivery. For example, a combination of fleet and gig economy delivery can be used to maximize the value of the fleet to deliver larger orders and use gig economy drivers to handle smaller orders or deliver to less dense geographies. Another example is to place smaller orders (e.g., parcel size) on the fleet when that order is either at or very close to an existing delivery, eliminating the parcel shipping cost.

Omnichannel Delivery



What

- Delivery appointment promising across multiple delivery modes

Why

- Provide a unified delivery booking experience to the customer
- Utilize specialized options to reduce costs and improve customer experience

Contactless Delivery

The pandemic has changed how drivers interact with customers. Social distancing has eliminated paper-based receipt processes and even electronic signature capture is no longer an acceptable practice. While companies still need to collect critical information to document the delivery, they need to eliminate human contact in doing so. Contactless delivery addresses this challenge by combining picture capture and GPS technology to effectively document the delivery and keep the customer and driver safe.

Contactless Delivery



41.3176° N x 81.3454° W



6/22/20 10:47 EDT



What

- Proof-of-delivery information using picture capture and GPS coordinates

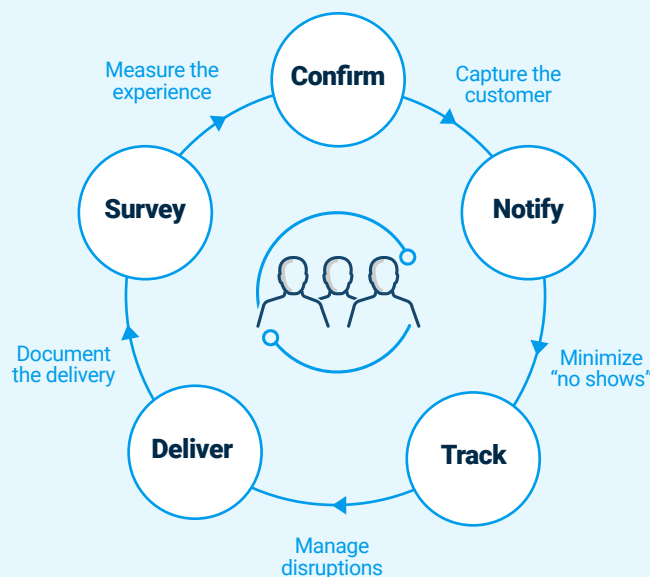
Why

- Keep drivers safe
- Gather critical delivery information for customer updates
- Minimize disputes

End-to-end Customer Engagement

Engaging the customer from purchase to post-delivery enhances the customer experience, improves delivery success and reduces the cost to keep customers informed. Delivery information is the cornerstone of an end-to-end engagement strategy from confirming the delivery appointment, to notifying that the delivery is underway, tracking the delivery progress, documenting the delivery and measuring the delivery experience. Not only does it make customers happier when they know the exact status of their delivery, it can also be used to help ensure the customer is there when the delivery arrives or has unlocked the fence and put away the dog for unattended deliveries. The impact to customer service is also significant as the leading call from customers is “Where’s my stuff?”. Companies that have implemented a self-service notifications process have seen their call center volumes reduced by upwards of 50%.

End-to-end Customer Engagement



What

- Delivery status and proof-of-delivery notifications and surveys during the delivery life cycle

Why

- Improve customer experience
- Reduce delivery failures
- Minimize disputes



Customer Facing **Logistics**

Using a combination of service and delivery information to create substantial value for the customer.

The ultimate delivery strategy leverages data and logistics capabilities to elevate the customer experience and establish a distinct competitive edge. By providing actionable delivery insights, companies enable clients to optimize their own operational efficiency.

Distributors US LBM and BC Sands demonstrate this strategy by using real-time tracking apps and precise, same-day delivery scheduling. These tools boost contractor productivity by preventing costly labor downtime, allowing the suppliers to deliver superior customer value and command premium pricing.

**Delivery service
+ information
= differentiation**

Improve Contractor Crew Productivity



**Contractor
app**

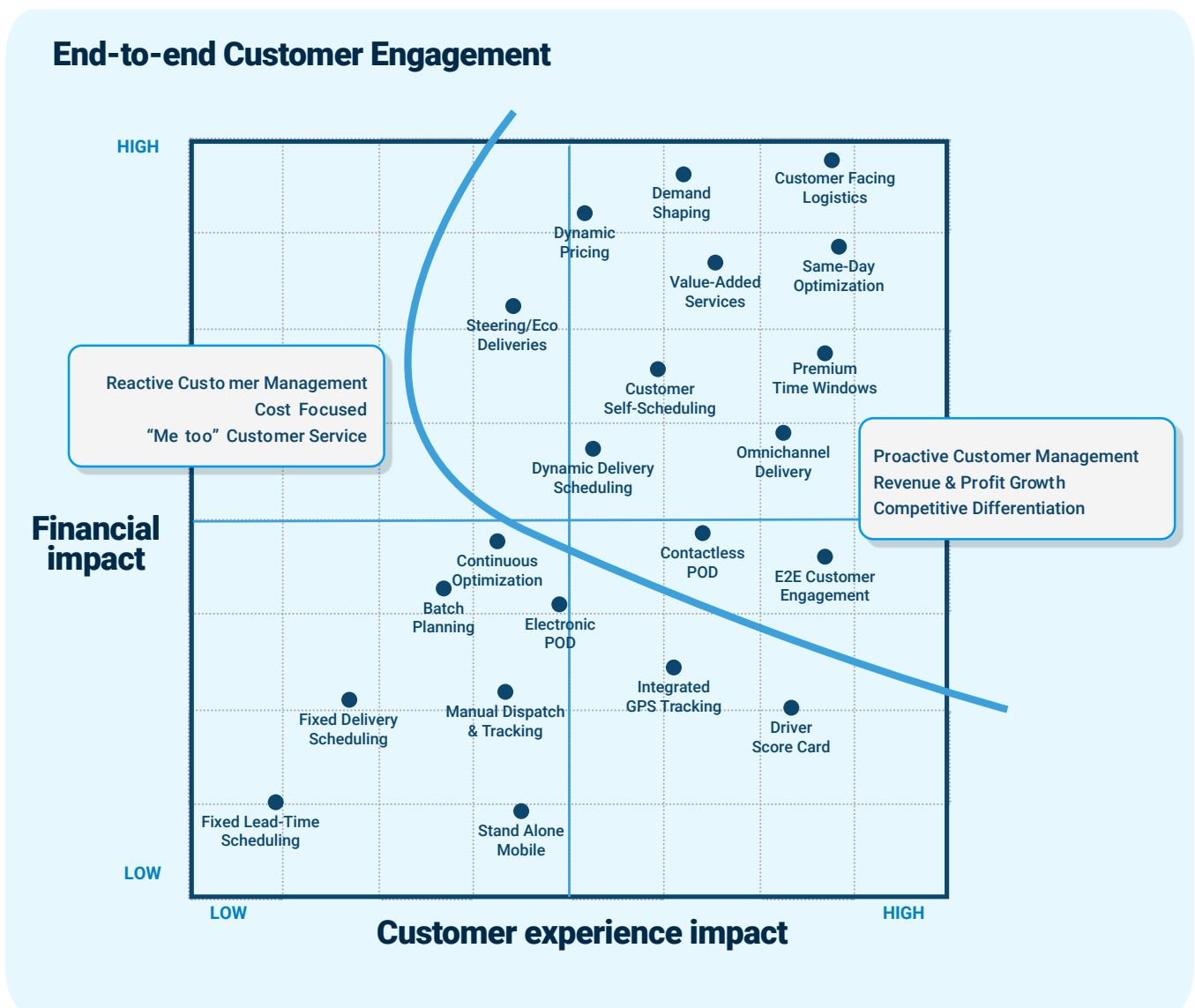


**Time-define
same-day delivery**

Last Mile Delivery Impact Model

A number of delivery strategies can be employed, but some are significantly more impactful. The two biggest steps to move from a reactive approach to delivery to one that creates competitive differentiation are: 1) adopting a strategy that customers can influence during the delivery appointment booking process and 2) understanding that delivery information is a powerful way to engage the customer.

From here, there are a number of techniques to drive revenue, competitive differentiation and productivity. This chart contrasts the value of traditional approaches to last mile delivery with today's most advantageous strategies and tactics.





Changing **the Conversation**

Many logistics organizations struggle to implement advanced delivery strategies and tactics.

The companies that have made the leap have innovated in four ways.

Enlist the commercial organization:

Align customer-facing teams so they abandon outdated logistics concepts and advocate for modern delivery strategies that drive growth.

Link delivery to the broader set of business metrics, not just supply chain ones:

Look beyond cost and on-time rates to measure how delivery directly impacts revenue and overall customer satisfaction.

Move the discussion from “get it done” to “get more”:

Shift executive perception of delivery from a basic cost center to a C-suite priority that boosts revenue, brand value, and differentiation.

Engage the customer:

Study how clients use current delivery capabilities—or are limited by them—to uncover opportunities for enhancing their business and experience.

Creating Opportunities

The rapid evolution of last mile delivery strategies, tactics and technologies provides companies with a wealth of opportunities that are required in today's delivery economy!



Dynamic delivery appointment scheduling changes the last mile delivery game



Delivery choice is the key to delighting customers and improving profit



There are numerous techniques to drive revenue, profit and competitive differentiation



Delivery information should be used from demand generation to post delivery



Dig deep to understand how delivery information can benefit your customers



Use omnichannel booking to synchronize delivery channels to improve agility and harmonize the customer experience



About Descartes

Descartes powers more responsive, efficient, secure and sustainable international and domestic supply chains by uniting logistics-intensive businesses on its Global Logistics Network (GLN). Shippers, carriers, and logistics service providers connect and collaborate on the GLN leveraging technology, data and AI to manage last mile deliveries, domestic and international shipments, transportation rating and payment, global trade research, customs compliance and a variety of regulatory processes. Learn more about Descartes (Nasdaq:DSGX) (TSX:DSG) at www.descartes.com and connect with us on [LinkedIn](#) and [X](#)

DESCARTES™

Uniting the People & Technology That Move the World.