Winning at Home Delivery

Providing Customers Choice with Profitability

DESCARTES

ChainLink Research

2013

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Introduction—Home Delivery: The New Battlefront for Retail

Much of the buzz in retail right now is consumed with home delivery. Online giants like Amazon and eBay are entering into the territory—literally—of brick and mortar retailers, opening warehouses in choice markets.[1] This brings them a step closer to providing the immediate gratification inherent in the in-store purchase. But traditional retailers are fighting back with new retail formats, new technology, and also, home-delivery service.

Home delivery is not new;[2] and same-day delivery services have been *de rigueur* for shoppers in the UK and Asia for many years.[3] A decade ago, many etailers in the US tried home delivery. Start-ups abounded, but many failed. Many of them underestimated the cost and requirements for providing precise delivery. So what will be different this time?

A competitive response is required. But not doing it well can be a huge dissatisfier, jeopardizing potential lifetime relationships. In many sectors like service industries, precision-delivery schedules are a core part of their business offerings, and they make a profit at it, too. Thus, delivery is an opportunity for retailers to reorient their thinking from minimizing costs to maximizing revenue.

Reorienting thinking from minimizing cost to maximizing revenue creates competitive opportunity for the retailer.

The decision to do home delivery is an executive decision, and needs to consider many factors of the business model not only to stay ahead of the competition, but to also remain profitable. These issues must be addressed before embarking on what can be either a huge calamity or a source of increased revenue and customer satisfaction.

ChainLink researched the global landscape to understand which of the current practices are myths and which are the winning strategies. We will share these insights with you throughout this paper.

In this paper we will explore:

- Achieving the Home Delivery Advantage—elements of the home-delivery business model
- Customer Choice—offering the customer choice while optimizing cost and performance
- What It Takes—best practices and technology to excel at home delivery
- Conclusion—the way forward

[1] Sixteen states as of February, 2013
[2] Home delivery was once considered the domain of local merchants such as florists and fast food restaurants, and equipment maintenance and service providers for decades. But here, we are addressing large regional, national, or even international retailers.
[3] Asia (Japan and Korea) has long been known for being ahead of North America in retail innovation with ideas like mobile marts, pick and deliver, NFC, and other mobile shopping innovations.

Achieving the Home Delivery Advantage

Whether you already provide home delivery and want to up your game or are considering providing home-delivery services, there are a few critical elements to consider.

Who Needs It?

Home delivery is not just an issue for online retailers. You know that. But as brick and mortar retailers consider effectively competing against etailers—or one another—becoming stellar at home delivery is essential. And besting online merchants is quite possible by leveraging the *physical presence* that traditional retailers often have. Securing the last mile is probably the best way to secure and ensure the customer relationship and eliminate a key competitive advantage of online. But this article is not just for the traditional retailer. As competition heats up, online, which has most often ceded home delivery to third parties (in the US), will have to find other differentiators to remain competitive.

The challenge is: retaining retailer control and yet providing customer choice.

Home delivery is not just about scheduling a delivery—it is also about *service*. Many category retailers, de facto, have to provide services due to the nature of their products—the need for assembly and installation, for example. Specialty retailers know that an extended service relationship under their brand creates loyalty and long-term relationships. But general merchandisers have often missed this opportunity and their sales have often suffered as a consequence, further marginalizing their advantage of physical presence, as well as their mantel as a destination site and retail anchor in malls or shopping neighborhoods.

But before deciding to provide home delivery, there are many factors to consider.

The Home Delivery Model

Though the focus is often on time, there are more considerations. *Time is an outcome—not the starting point.* To design and successfully execute home delivery services, there are important financial and customer-service metrics to be considered in order to arrive at *profitable on-time service.*

The Business Model—whether you are a wholesale distributor, etailer, brick and mortar retailer, or some hybrid thereof (and most are today), your business model is more than your category or channel strategy. It requires thinking about the customer segments you serve; the channels, products, and services you provide; and the future you are contemplating. Contemplation should get you focused on the service model appropriate for your customers: maybe not just *to* the home, but *in-home*. There are interesting innovations to think about. For example, one global apparel business, in response to the return of the business suit, has launched a made-to-measure service: doing measurements and fittings at the customer's home or office. It may be somewhat elite, but this demonstrates that they gave some thought to who their customer is. They didn't just continue providing the product or service *as it was.*

Product—this often is a prime dictator of the service model. Various categories of products require what is often called 'attended delivery'—that is, the customer or some designate must be there to receive the goods.

- *Service Requirements*—assembly or installation requirements in categories such as electronics, appliances, home gyms, or medical devices.[4] Customers generally expect to pay for this and often purchase a service contract; that means you will be potentially visiting their home many times. Organizations that charge for these services can not only recover cost, but make a profit from these services. For example, John Lewis, in the UK, added these services to their home-delivery program and added significant revenue to the company.
- *Restricted delivery*—requiring COD and/or signature due the nature of the product—prescription drugs, alcoholic beverages, or hazardous chemicals, for example. Large retailers like Walmart charge a flat fee for this service.
- *Perishables*—food is the most noted example. Short delivery windows are key here. Radish Boya in Japan has thousands of organic and produce suppliers and delivers fresh items to over one hundred thousand customers in Japan. Tesco in the UK; and in Korea, Tesco's Home Plus provide home delivery from their warehouses. France has drive-through *click and pick* with supporting *satellite-fulfillment centers*—stores or small warehouses—designed specifically for the inventory required in these centers, as well as drive-through grocery loading. Also in France, Ooshop—the online shopping service of Carrefour (the largest retailer in Europe and Latin America) provides precision deliveries in partnership with Star Services.[5] These grocers are all examples of *fast-cycle*, mostly same-day, deliveries.

Of course, many products such as consumer goods have no such requirements; but in certain locales, such as in metro settings, leaving a parcel on the doorstep *is not an option*. Which leads us to the issue of terrain.

Terrain—this is geography plus the challenges associated with reaching customers. Rural, suburban, or metropolitan areas require very different approaches. For example, a large furniture delivery van may have issues in the city due to narrow streets, lack of parking and traffic issues. Conversely, rural can be *really* rural, requiring driving long distances without major highways. Of course, if you have a dozen customers in Nome, Alaska, it might be worthwhile. This concentration of customers coupled with current orders is called the *drop density*—how many customer orders in a given local.[6] The more density, the more scalable the service. Achieving drop density in your delivery schedules allows you to consolidate orders in a particular geography and optimize costs, allowing you to charge modest delivery rates or even provide free delivery.

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[4] Which is likely to see a substantial increase as more connected-care/home-health models emerge
[5] Star Services makes over 1,000,000 deliveries per year to over 165 locations throughout Europe.
[6] We point out that dense populations may not equate to drop density; your model should be based on your customers and their rate of ordering.

Customer—different demographics and life style considerations often drive people's decisions to seek home delivery. Seniors are an example of customers who can tolerate longer delivery windows, but often need various services. Young professionals, on the other hand, may have narrow windows, often in the later evening. Effort should be made to understand how demographics can impact your services.

Going It Alone or Using Third Parties—going it alone, that is having your own fleet, may have significant advantages. For example, Home Depot and h.h.gregg, in the US, have dedicated fleets. This allows them complete freedom and the capability to provide exceptional home delivery including installations, services, and removals. Of course, that is a huge investment in equipment, staffing and technology. The partner option—using third parties who specialize in home delivery—is frequently the choice,[7] especially with ecommerce, since customers may be beyond the retailer's facilities. Different strategies even in the same category may be suitable: W.S. Babcock uses dedicated fleet; whereas Sleepy's uses operators/third parties. But the key is to *manage the process.* Sleepy's, therefore, uses technology to orchestrate the process even though they use third parties.

Parcel shipments may often allow the retailer to use existing mega-parcel providers. And as the post office—not just in the US, but in many countries—strives to compete against the overnight parcel carriers, they can leverage their obvious density and route advantages.

For attended-delivery requiring services, a specialty third-party logistics partner is often the choice, or a mix of your fleet in your territory and partners in extended markets. Their knowledge of the consumer/home-market business;[8] their fleets and personnel; as well as advanced technologies that allow them to route, schedule, and be responsive to change can be a critical asset to any retailer's program.

Product companies that use channels should have a behind-the-scenes view of costs and charges. Unfortunately, many do not understand the charges and fees between service providers, retailers, and partnerships.[9]

These decisions are critical, since long-term customer relationships are at risk.[10] The customer sees the whole process, including the 'who' and how the delivery was done, so the third party can make or break the retailer's business (and their own relationship with the retailer).

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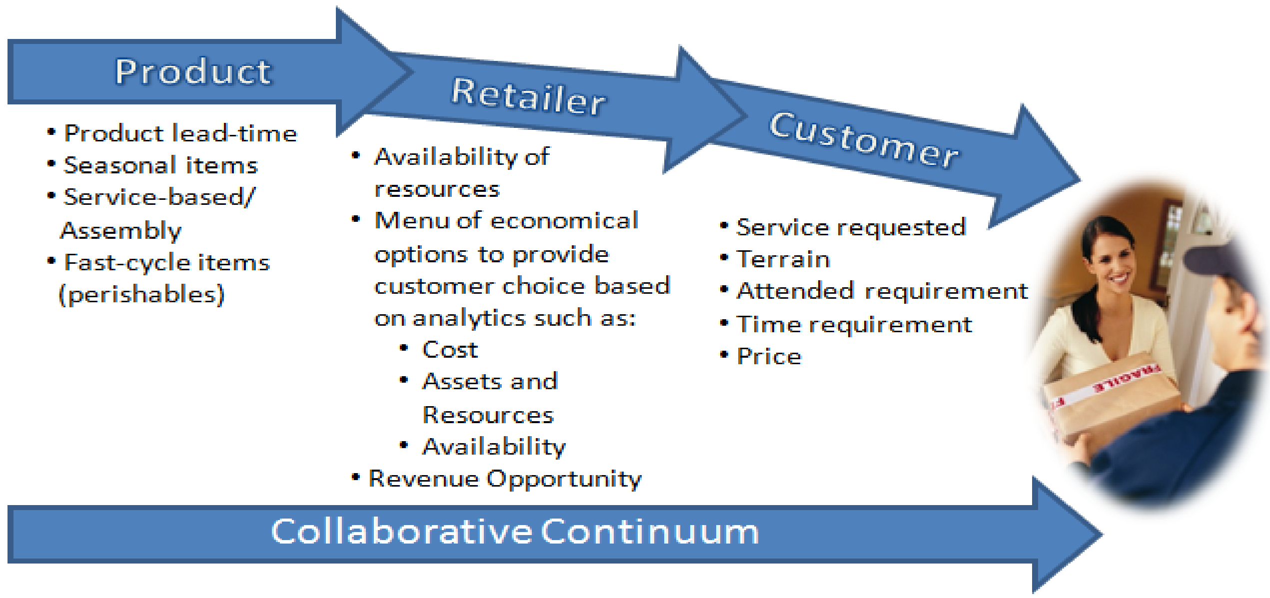
[7] About 50% of the market today

[8] A great example is Cory, a family-owned home delivery and service company on the east coast. They not only provide the 'expertise' in the delivery, but have opened distribution centers in strategic markets to house inventory and carefully stage shipments for delivery. This approach—leveraging technology to optimize their business and investing in key markets—has allowed them to compete against other third parties and win big furniture brands for customers.

[9] For instance, Amazon's alliance partnership: Amazon makes more money selling other peoples' inventory, it seems, than their own.



Customer Choice

What is the *Right* Time?

Everyone focuses on the timing, especially now with the 'fast cycle,' same-day buzz. In reality, the 'what' and 'how' are as important—if not more so—than the time. For example, a customer orders a new bed to be installed. The retailer can deliver today or tomorrow. However, the carpet people are coming first. They expect their work to take the whole day. Do you still want that bed *so fast*? Fast may really be, "I want it when I want it."[11] Conversely, you would like to use the cheaper pharmacy your group health insurance recommends, but you can't get rapid response. If they could deliver responsively you could fill new prescriptions as needed and save money.[12] At the same time, the retailer needs some control in order to ensure that they can keep the commitment and not lose money in the process.

In reality, then, delivery—that moment of service—becomes a collaborative decision between the customer's desired outcome and the retailer's ability to fulfill it.

Smart retailers often 'incentivize' the customer to make certain choices that are based on optimizing many of the factors above. The incentives can be based on an analysis of their business—their customers, their frequency and type of purchase, their previous scheduling requests, and so on to create a set of schedule choices for each customer. Optimal times, which are those that allow the highest drop density, may be priced differently than premium delivery times. Premium delivery can be part of the existing choice set or it can also be based on *incremental dynamic optimization*, which looks at delivery schedules to create actual appointments at the time of order.

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[10] "The end result in the customer's home is very important because it reflects back on us as a retailer," stated a major retailer that uses specialty third-party delivery services.

[11] Interestingly, Sleepy's uses Cory as one of their third-party distributors. Yet the key is to use *your own technology* to monitor and manage the scheduling between the retailers, manufacturers, distributors, and fleet operators to ensure successful deliveries.

[12] Currently retailers like Walmart will ship prescriptions from the store to your home for a $10 delivery charge. Some local pharmacies—non-discount generally—will deliver to the home, but on the driver's schedule, i.e. in conformance with an optimized route/high density model.

Thus, the customers can make that trade-off between urgency, availability, and cost for delivery. The value to retailer has been demonstrated by these tiered-incentive offerings, which can actually contribute profit[13] to the company.

To Charge or Not to Charge—That Is a Fair Question

The stampede to free shipping is another factor which is a cause for major concern by many retailers. Not all shipping needs to be free—and is not. Even the biggest etailers known for free shipping don't actually provide *unrestricted* free shipping. And not all free shipping needs to be unprofitable.

Understanding Cost and Maximizing Revenue

Having a strong analytical approach to program design and ongoing monitoring to refine choices is essential. The value in this is not only minimizing cost, but ensuring that your model is competitive enough to capture and keep customers, and to make money at home-delivery services.
Hence, it is important to understand the critical cost factors (whether you operate your own logistics or use third parties), which include:

- Logistical infrastructure costs and expenses (warehouse strategy)—large fulfillment center, satellite, or store pick-up; location and picking methods.
- Inventory strategy to stock the distribution network.
- Transportation costs and expenses—type of equipment, asset costs and management, fuel costs. Green strategies may reduce some of these expenses.
- Service costs—equipment and systems. Here, most often, the customer does pay for this. Having this service is often a reason *to choose* a retailer.
- Dispatching and call center—keeping these costs down through stellar customer service, of course, is the way to go.[14]
- Personnel—these processes and services require highly knowledgeable personnel. Especially in logistics, training is a constant due to the high turnover rates.
- The systems to support everything: warehouse, labor management, and transportation.
- Profit margins—blending product costs/margins with the costs of operating specific services and routes allows the retailer to get a picture of potential rates and charges. 'Free' may be more feasible on a high-margin product line (like the at-home tailored suit), but not on low-margin products.

Analyzing the financial costs and service levels according to different choice options allows the retailer to think through many issues before deciding what to offer and how to incentivize customer choice. Amazon has 'free' shipping if you are a Prime customer or you are willing to wait. Theoretically, they have assessed the trade-off of potentially frequent deliveries which might exceed the Prime fee vs. the additional value of

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[13] Companies that shared some of this data with us will not report this data publicly, but there are several academic research studies that have instructive examples. It is interesting to note that more sophisticated methods for incentives (those that offer more choice based on current schedules vs. rate tables) often show *more profit*, since they are based on actual schedules and delivery costs. For this, the right kind of scheduling software is required.
[14] Customers are often the cause of exceptions.

loyalty. A more nuanced model, the Tesco membership program for home delivery food service—Delivery Saver— has an incentivized program (a subscription) that works for the grocer and the customer.[15]

Incentives do not just include timing and mode, but also the value of the order. For example, John Lewis, in the UK, charges £3 for standard UK delivery on orders under £50 and offers free delivery for orders over that based on retailer choice—within 5 days. This is the technique used most often by both retailers and etailers today. Beyond that, they offer an array of choices: by product, by service, by terrain and by mode. They deliver or 'click and collect' with customer pick-up at a specific store. EU retailers are rolling out more and more of this model including mobile shopping/drive through pick-up for suburban areas, too, which alters the cost and the outcome. Ocado in the UK has 'green' or environmentally friendly delivery times. A green truck is one that will already be in your area at a particular time, thereby reducing carbon emissions and operating costs.

Optimizing the Process

In order to improve service and, at the same time, control or even lower costs, optimizing the delivery process needs to be mastered.

Optimizing for High Drop Density—ensuring high drop density is a prime determinant of profitability. Low drop densities dramatically increase fuel, driver time, and almost all costs associated with delivery. The best methods can schedule orders to increase drop density while the customer is still in the ordering process. That is the moment at which the retailer can influence or 'incentivize' the customer's choice to an optimized selection. And that is exactly what retailers like John Lewis are doing. Behind the scenes, the software can determine the best delivery window.

Automating Appointment Confirmation—another major cause of profit erosion is the customer 'no-show.' And it is a source of friction as well, since the customer may insist they were at home. The best services have reminder processes and even automate appointment confirmations to ensure that the customer will be there. Big E Transportation[16] in the US is a good example.[17] Their automation has reduced 'not-at-homes' from 2.75% to 1.3%.[18]

Customer Follow-up/Satisfaction—post-delivery, the retailer surveys the customer to ensure that all went as planned. Proactively contacting the customer not only ensures that if there are issues they are rapidly resolved, but employees and third-party service providers know they are being audited and performance automatically improves. Performance data is evaluated to constantly improve the process.

The lesson is surely that in the future, rigidity will not be the hallmark of success as customers' demanding and diverse lifestyles drive retailers to provide enhanced services. Hence, retailers must analyze, rapidly learn from experience, and evolve ongoing models that work for both themselves and their customers.

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[15] These programs keep the competition at bay by providing convenience and loyalty promotions
[16] Big E is owned by Estes http://www.estes-express.com/
[17] They do 100% confirmation calls the evening before a scheduled delivery using a combination of live agents and an auto-dial IVR system.
[18] They also do post-delivery surveys using the same automated system, which improved their drivers' performances dramatically (from 65% '5-out-of-5' satisfaction to 95%). When the people delivering know they are being measured on customer feedback, it has a profound effect on the quality of the home delivery.

So, What's It Take? Best Practices and Technology

Enough experience over the decades has allowed some declaration of best practices for the home delivery model, though they may vary based on the type of business model. Leveraging technology successfully emerged as one of the critical success factors. So we highlighted the differentiating aspects of the technology that we learned from the best retailers and service providers in the business. (See Table 1.)

Capabilities and Best Practices for Achieving Superior Home Delivery

Best Practices: Home-Delivery	What to Look for in Technology	How It Helps Home Delivery—Commentary
Design and Planning	Ability to analyze and recommend an efficient physical distribution network that allows for inventory staging and strategies for economical delivery	Strategic planning based on evaluation of the full model, including incentivizing that allows you to retain control—i.e. not lose money—while providing choice.
Consumer- Direct Logistics Technology	Orchestration suite of integrated capabilities that focus on the 'one each'-B2C markets vs. B2B	Home delivery has different challenges than the B2B supply chain. Precision is critical in large scale consumer markets.
Dynamic Routing	Route optimization based on current orders and routes	Real-time optimized routing maximizes drop density at the outset. Behind the scenes, real-time maps and address confirmation ensure time and cost performance.
Incentivized Reservation Scheduling	Ability to develop economic models and dynamic schedules to provide attractive choices to the customer	Providing the customer an accurate appointment during check-out, whether online or in-store is a huge benefit. Incentivized choice or green options do require real-time engines. For service options, the system also needs to confirm personnel and equipment necessary for fulfillment.
Automated Delivery Confirmation	System confirms the appointment before the delivery	Reduces failed deliveries and service errors, saving time and money.
Telematics/ Mobil	Mobile GPS; Automatic Vehicle Locating (AVL)	Precise locating of vehicles and personnel. Performance *assurance* – monitoring of precise delivery status; provides driver instructions; links to routing execution for real-time routing changes.
Mobile Communications	Mobile voice communications that can integrate to key delivery data	P2P communication directly with driver or customer to deal with exceptions.
Scanning, Signature and Payment	Electronic Proof of Delivery (EPOD); Mobile payment capabilities	EPOD is expected for high value products. Techniques using GPS and smart mobile technology to capture electronic signatures or taking a picture of the front door with a time stamp can be simply and easily deployed for service confirmation.
Real-time Inventory and Order Tracking	Inventory Visibility – granular level inventory visibility	Omni-channel Inventory locating—in motion and at rest. Indentifies inventory for available-to-promise and or shipment-to-route creation and scheduling. Once an order is placed, provides the ability to track that order through to successful home delivery and service.
Labor & Skills Management	Labor management and skill matching	Scheduling personnel by skills and knowledge. Skill matching to ensure successful execution of services such as assembly and installation, repair, or removal that require special skills and equipment.
Customer Performance Metrics	Monitoring performance in each stage of the process	Not only ensures the best economic model, but also increases stellar customer satisfaction. Post-delivery customer satisfaction survey.

Table 1: Best Practices

There are, of course, many more details and technology requirements to consider. *Dynamic* systems are essential and critical in the home-delivery business to deal with the large number of complex details and the unpredictability of service to consumers.

Conclusion—The Way Home

Retailers can no longer compete solely on product and price. Think of this: each year consumers do a greater percentage of their shopping online or with mobile. That means, de facto, home services are a critical parameter in the competitive, overall profitability equation.

The decision to do home delivery and how to do it is a CEO decision, and is not really the domain of supply chain, per se. However, supply chain obviously plays a role in the strategy and becomes the execution arm of the service. It is an executive initiative to think about who you are, who your customers are, who your competitors are and what it takes to stay ahead of them. From there, the 'how' can emerge. It is clearly a competitive issue and may require large startup costs and effort, and impact customer perception and metrics. In addition, there is an opportunity to *increase revenue*. So this decision should be made at the highest level.

Leveraging technology-solution providers is key, since they already have extensive analytic modeling success and have built the models with most or all of the variables that might be considered. They are a powerful inclusion in your decision making, whether you are just beginning home delivery or want to improve your game. Virtually all successful home delivery businesses that require precision and the ability to scale have invested in their own advanced technology infrastructure and see it as a critical success factor. This is not piece-parts, but a highly integrated platform where the best practices and processes are integrated to focus on the customer and the order; and the processes from order through post-order are visible. Consumer behavior can be incentivized, and still satisfy both parties. In particular, for attended home delivery, using the right optimization technology can provide that collaborative customer/retailer choice in delivery methods to create the desired service with efficiency and profitability.

The local third-party service provider who has expertise and presence in the local terrain can leverage existing business density to provide better cost options. However, consumers are often dissatisfied with poor 'handoffs.' A poor experience does not make happy—or repeat—customers. So the monitoring and visibility of the third party by retailers should be part of the capability if you are going to take that route. Monitor through to the endpoint: delivery to the customer and confirmation that the service was complete.

In markets where competition is intense (and that's most of retail), it is unwise to ignore the home-delivery trend. But it is also unwise to plunge in without understanding and analyzing your options. Having a strategic response instead of a reaction is a wise approach. It is detrimental to customer satisfaction and has an adverse effect on company reputation to provide bad service, or to have to roll-back services if they do not meet your goals for success. When they happen to larger retailers, shareholders and the financial press take note.

You can either find your gaffs complained about in the social networks or create a great home experience that inspires customer loyalty for a lifetime.

About Descartes

Descartes (TSX:DSG) (Nasdaq:DSGX) is the global leader in providing on-demand, software-as-a-service solutions focused on improving the productivity, performance and security of logistics-intensive businesses. Descartes has over 172,000 parties using its cloud based services. Customers use our modular, software-as-a-service solutions to route, schedule, track and measure delivery resources; plan, allocate and execute shipments; rate, audit and pay transportation invoices; file customs and security documents for imports and exports; and complete numerous other logistics processes by participating in the world's largest, collaborative multi-modal logistics community. Our headquarters are in Waterloo, Ontario, Canada and we have offices and partners around the world.

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About ChainLink Research

ChainLink Research, Inc. is a Supply Chain research organization dedicated to helping executives improve business performance and competitiveness through an understanding of real-world implications, obstacles and results for supply-chain policies, practices, processes, and technologies. The ChainLink 3Pe Model is the basis for our research; a unique, multidimensional framework for managing and improving the links between supply chain partners.

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