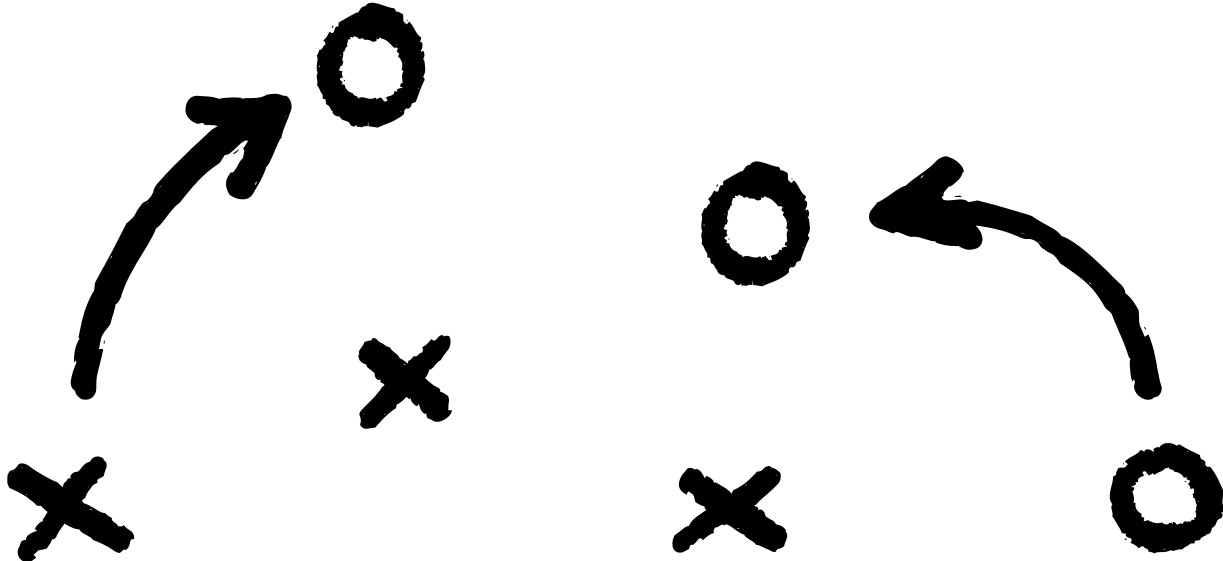# PLAYBOOK

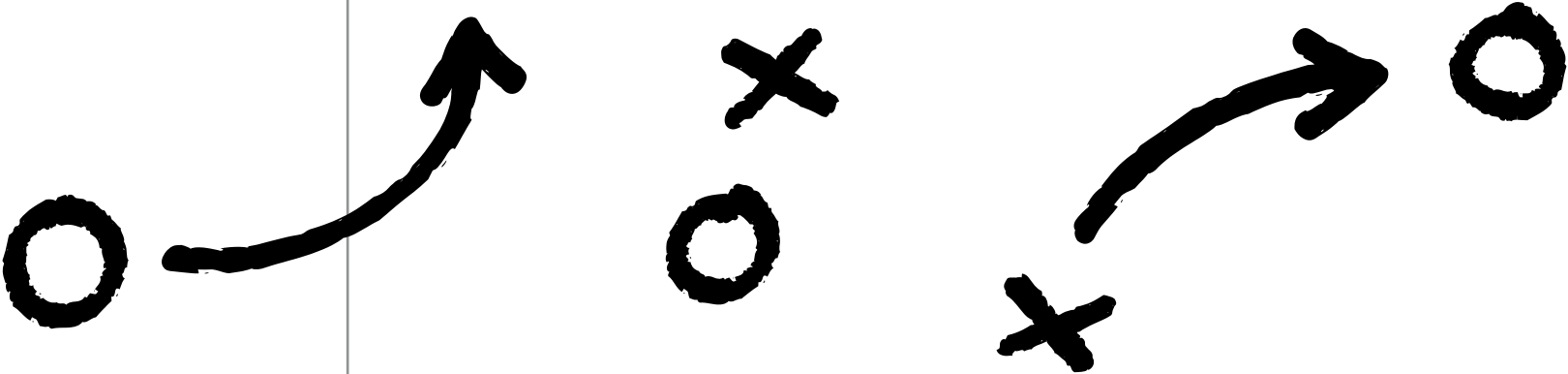## THE PLUG-AND-PLAY SUPPLY CHAIN

DHL Supply Chain

A GUIDE TO IMPLEMENTING THE NEXT-GENERATION SUPPLY CHAIN

This playbook is designed to create a high-level roadmap to implementing the next-generation global supply chain – called the plug-and-play supply chain.
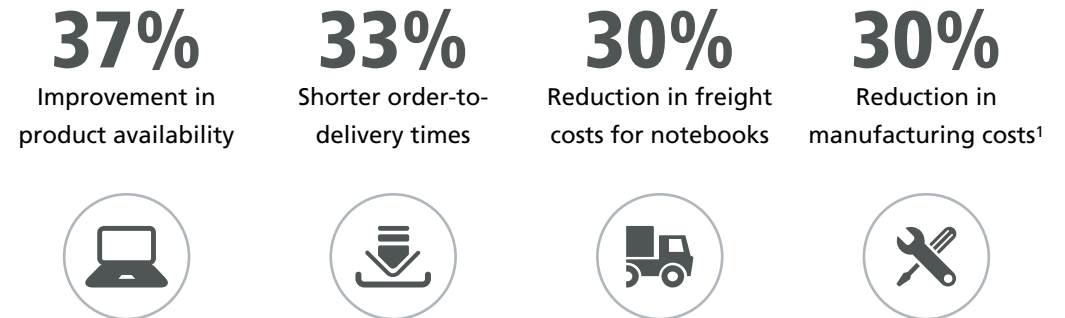
THE PLUG-AND-PLAY SUPPLY CHAIN IS A SIMPLE CONCEPT.

It consists of a core set of standardized, easily replicable solutions, augmented with standardized bolt-on process components that are tailored to unique segment or market needs. The plug-and-play supply chain drives profit for the enterprise on a repeatable basis and is designed to fuel profits, not just execute operations. It's the segmented, modular approach that makes this possible.

Early adopters prove this point. Dell, for example, experienced:

37%	**33%**	**30%**	**30%**
Improvement in product availability	Shorter order-to-delivery times	Reduction in freight costs for notebooks	Reduction in manufacturing costs[1]

1) David Simchi-Levi, Annette Clayton, Bruce Raven, "Winter 2013 Opinion & Analysis," Sloan Management Review, http://sloanreview.mit.edu/article/when-one-size-does-not-fit-all/#article-authors, 2012.

THE PLUG-AND-PLAY SUPPLY CHAIN IS A THREE-STEP PROCESS THAT INVOLVES:

3 CONTINUOUS MEASUREMENT AND ADJUSTMENT

2 OPERATIONAL STANDARDIZATION

1 CUSTOMER-DRIVEN SEGMENTATION

This playbook outlines these implementation steps ▶

STEP 1:
IMPLEMENTING SMART SEGMENTATION

OVERVIEW: DEFINITION, STAGES AND CONTEXT

Smart segmentation involves designing and operating the supply chain by understanding the specific performance characteristics of the company's products, channels, manufacturing and supply capabilities, customers, regions and service models. The goal is to create a supply chain that not only supports profitability and growth, but also drives it.

There are three stages to implementing a smart segmentation strategy:

STAGE ONE	STAGE TWO	STAGE THREE
Categorize activities	Add analysis and information	Collect and analyze data

STAGE1
BASIC

Stage One

Categorize your supply chain activities by some, or all, of four basic elements:

- Channels
- Customers
- Products
- Regions

STAGE2
PROACTIVE

Stage Two

Add refined analysis and information. Data points include accurate, standardized cost-to-serve data and weighted values for the strategic importance of customer types or product categories. Data should be averaged and aggregated to inform better decision-making.

STAGE3
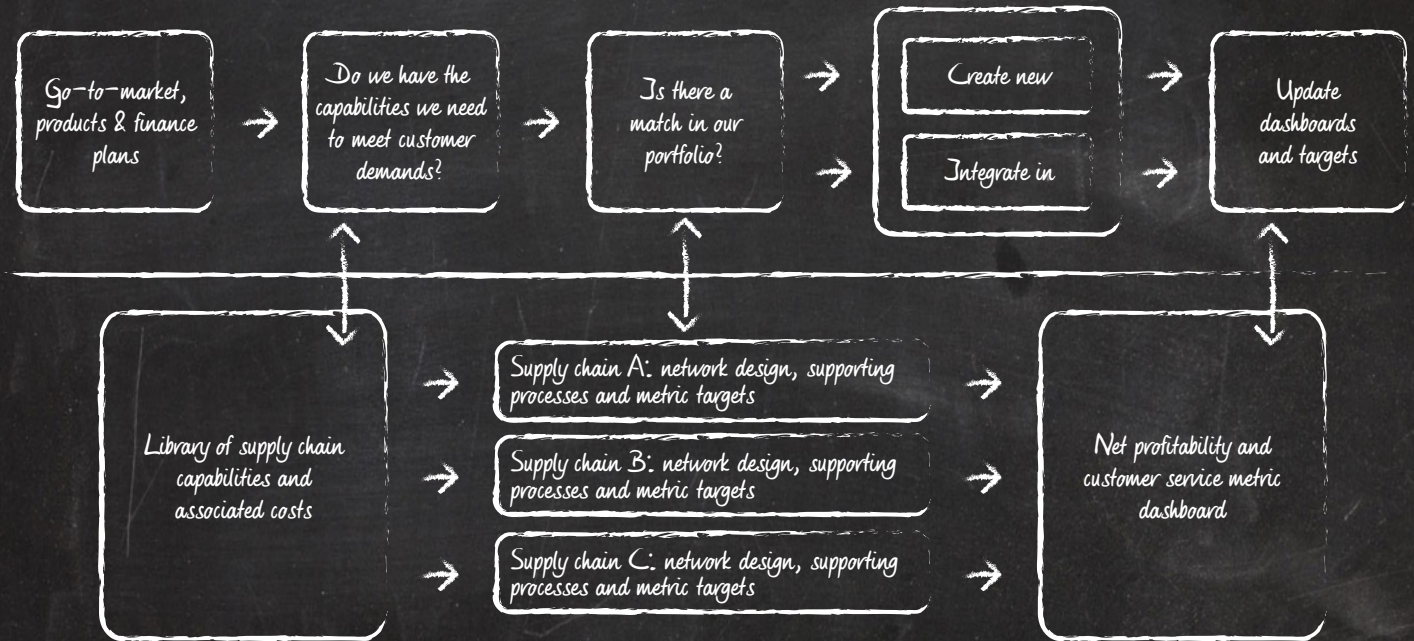# PREDICTIVE

Stage Three

Collect and analyze actual, not averaged or aggregated, cost and profitability data down to the SKU level. Use this information to segment supply chain operations to balance both the cost and the revenue of the enterprise. Drive supply chain operations by informed revenue/profit potential analytics. Move toward predictive vs. reactive supply chain management based on better information.

Segmentation must be integrated with the go-to-market process or commercial cycle, depending on the competitive structure of the industry. Note that the portfolio of supply chain capabilities is applied in different combinations to support different segment requirements – e.g., supply chain A, B and C.[2]

Segmentation cannot succeed without cost-to-serve analysis. Cost-to-serve analysis leads to more objective decision-making. It reveals where to reduce costs and where to invest. It requires knowing the cost structures associated with different supply chain architectures.[3]

Supply chain segmentation as an ongoing process

Supply chain design and planning

Go-to-market, products & finance plans → Do we have the capabilities we need to meet customer demands? → Is there a match in our portfolio? → Create new / Integrate in → Update dashboards and targets

Library of supply chain capabilities and associated costs → Supply chain A: network design, supporting processes and metric targets → Supply chain B: network design, supporting processes and metric targets → Supply chain C: network design, supporting processes and metric targets → Net profitability and customer service metric dashboard

Existing supply chain portfolio

Source: SCM World, 2013.

2) Barry Blake, "Supply Chain Segmentation: The Key to Future Profitability," SCM World, 2013, p. 12
3) Ibid.

IMPLEMENTATION:
PUTTING SEGMENTATION TO WORK

There are three basic steps to implementing segmentation.

01

Gain executive sponsorship and create the enabling organization

- Secure a senior executive mandate and sponsorship
- Set up a cross-functional team
- Establish clear and compelling communication by leadership
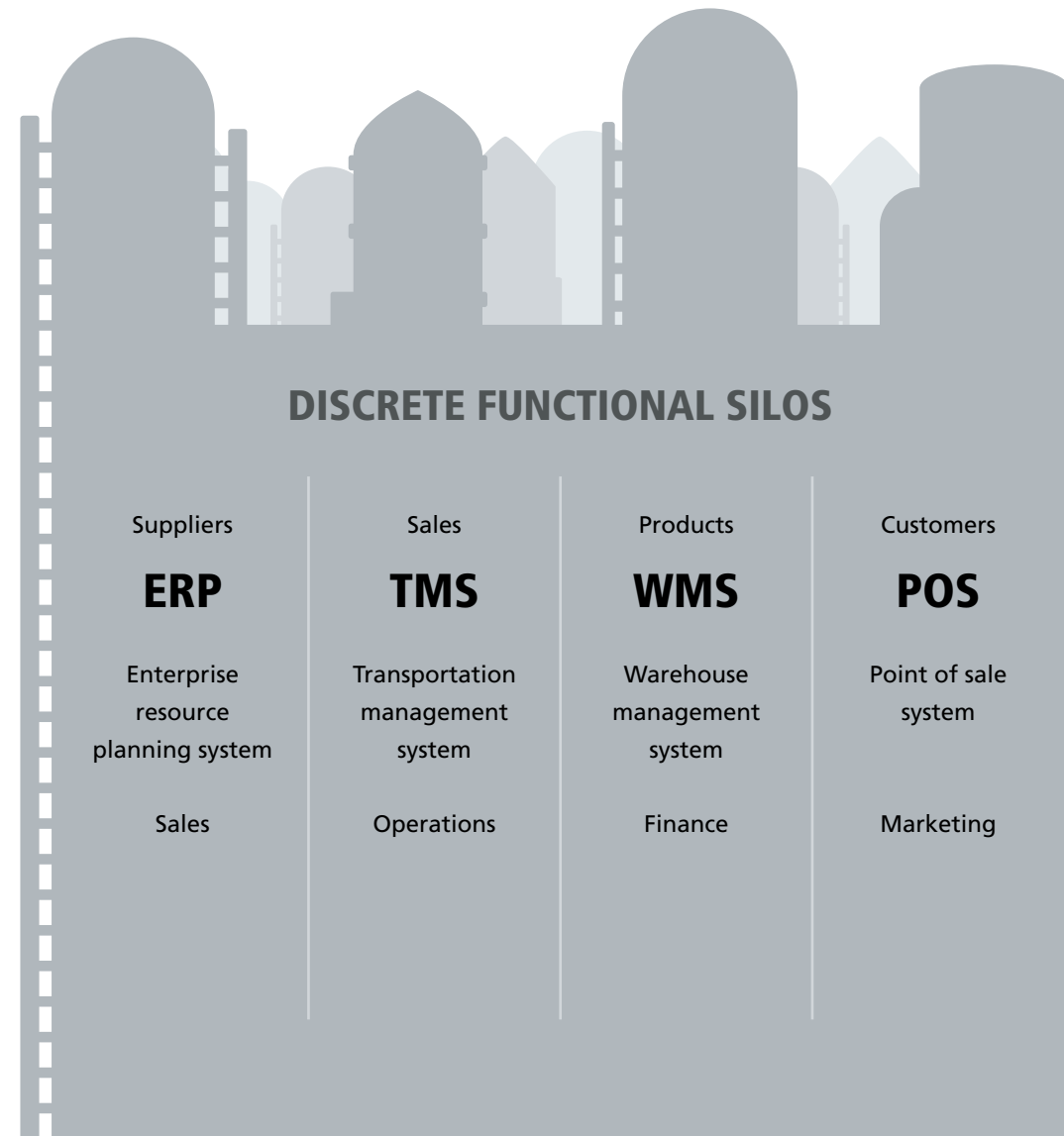- Start small - with a pilot program in one division or group

02

Collect the data

Collect, cleanse and merge data from discrete functional silos, including:

- Enterprise resource planning (ERP)
- Transportation management system (TMS)
- Warehouse management system (WMS)
- Point of sale systems (POS)

03

Define the segments, design an analytics-based plan for improvement and execute new segmentation

- Use analyzed, merged and cleansed data to segment the supply chain to deliver highest value to the customer and the bottom line
- Re-configure service and supply chain to reflect new segments
- Measure results, continuously fine-tune based on metrics and performance

DISCRETE FUNCTIONAL SILOS

Suppliers	Sales	Products	Customers
ERP	**TMS**	**WMS**	**POS**
Enterprise resource planning system	Transportation management system	Warehouse management system	Point of sale system
Sales	Operations	Finance	Marketing

STEP 2:
STANDARDIZE SUPPLY CHAIN OPERATIONS

ONCE SEGMENTS ARE DEFINED, THE NEXT STEP IS TO MAP HOW THOSE SEGMENTS CORRELATE TO THE SUPPLY CHAIN OPERATING MODELS

The idea is to simplify wherever possible. This means standardizing supply chain operations and components in order to arrive at a segmented and standardized supply chain – the plug-and-play supply chain.

This strategy includes:

1 Developing less complex, best-fit supply chain operations

2 Starting small and "road testing" scenarios/solutions. Build from success

THE BUILDING BLOCKS FOR THE NEW STANDARDIZED SUPPLY CHAIN MODEL:

Core modules

A core standardized supply chain. This supply chain is the 80% solution as it addresses 80% of normal requirements. It must be robust enough to operate across geographies, customers, products and channels.

80 / 20

Plug-ins

Standardized, finite number of plug-ins that address the customer, market or channel. Plug-ins tackle the other 20% of the supply chain that requires customized solutions.

Here again, work to standardize the customized plug-ins as much as possible along a template-style approach.

The key

Determine which supply chain process improvement activities are most effective and generate the highest contribution to performance, competitiveness and profitability. Then standardize those into core solution templates, and layer on customization plug-ins needed by the customer or market.

STEP 3:
MEASURE & IMPROVE, CONTINUOUSLY

THE FINAL STEP IN THE PLUG-AND-PLAY JOURNEY IS ONGOING MONITORING, MEASURING AND IMPROVING

Companies should look at their networks every quarter or every six months, and adjust based on the findings. This means measuring actual costs and profitability based on complete cost-to-serve and profit contribution.

Measure before-and-after impact on profitability in terms of:

- Sales
- Customer
- SKU
- Cost-to-serve
- Channels
- Inventory optimization
- Service lane

- Customer service
- Agility
- Profit/margin
- Growth
- Supplier performance/ contribution to profit

Segmentation

5.
Implement
& monitor

1.
Setup

4.
Define standardized
model assignment

2.
Gather
data

3.
Define
segments

Source: Competitive Insights, 2016.

IMPLEMENTATION CYCLE

Companies need to follow a standard cyclical implementation cycle that blends implementation with constant measurement and improvement. A metrics-based continuous improvement cycle is essential.
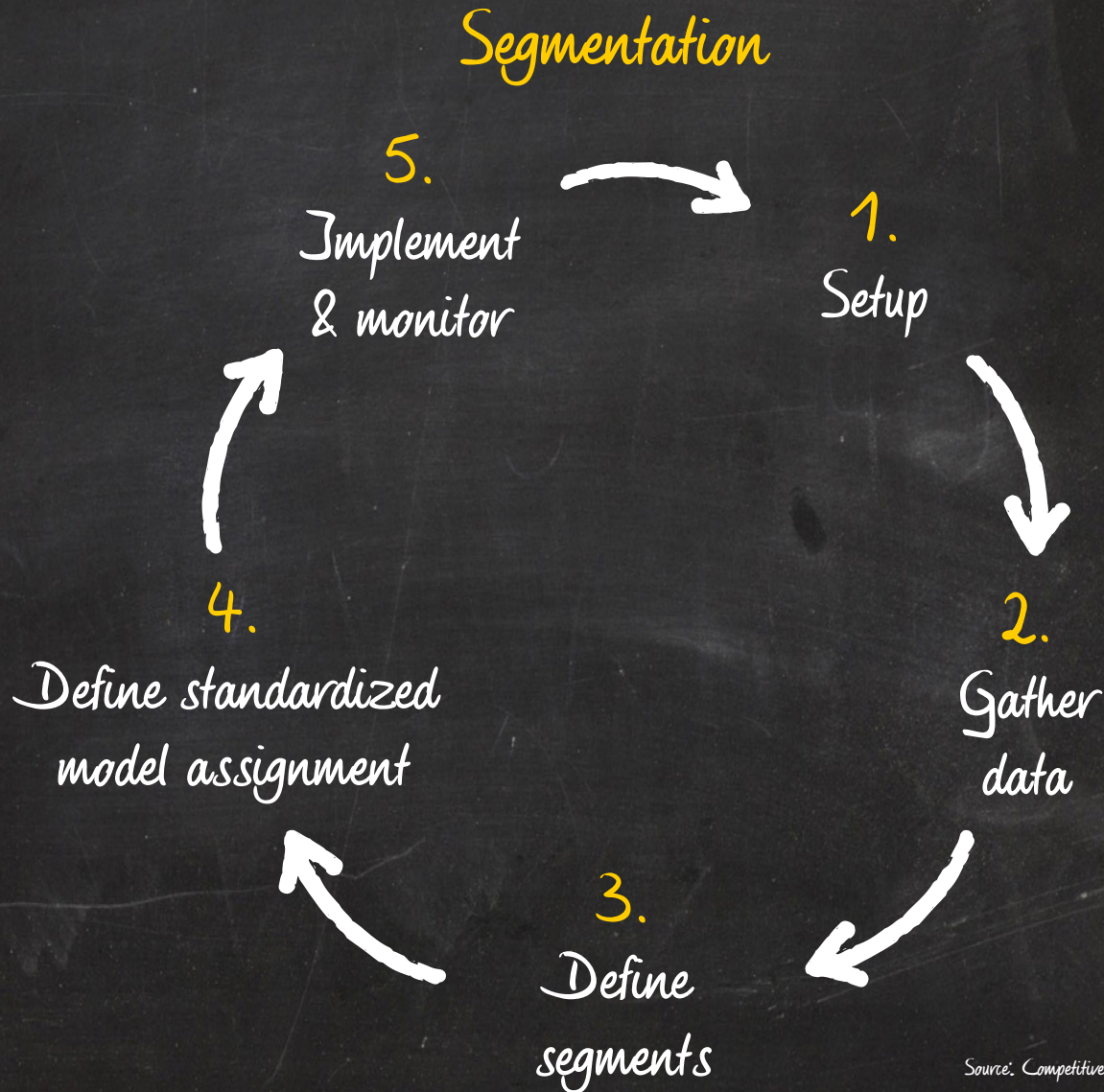
THE PAYOFF

Implementing the plug-and-play supply chain is not easy. Companies face challenges every step along the way. The key to success lies in making smart segmentation-standardization part of the company's strategy and translating the results into terms everyone, especially the Chief Financial Officer, can understand.

WHAT'S THE PAYOFF?

Consider this. If a company has 100,000 delivery locations and 80,000 of them are marginal, the company could apply smart segmentation and standardization to transform 10 percent of the marginal customers into great customers. If it does this, the firm automatically increases profits – significantly – without acquiring a single new customer.

Smart supply chain segmentation and standardization is about making better decisions based on better information. It is about getting out ahead of opportunity and becoming predictive and even prescriptive about managing the business. That ability drives profit and growth.

CASE IN POINT:

CUSTOMERS – FROM UNPROFITABLE TO PROFITABLE

A company has two customers in the same region. One is far more profitable than the other. No one understands why.

The company uses segmentation analytics to uncover the root cause of this disparity. It discovers it is providing the same level of service to both, despite the difference in profitability.

The company can make the tactical move to adjust service levels downward for the marginal company – go from four-hour to 24-hour service, for example. Or, the company could delve deeper and figure out what proactive steps it could take to turn the marginal customer into a profitable one.

Based on this analysis, it could deploy an intelligently segmented, standardized supply chain to serve the unprofitable customer more profitably. This approach assumes that, without changing the marginal customer's behavior, the company can adapt its operating model for serving that customer, using the plug-and-play supply chain, to make that customer profitable.

How would this work? Let's say you have 100 customers whose financial performance characteristics are all over the map. You treat them the same because they are all aggregated into one demand point. But let's say you have four segments with four standardized operating models. You may have customers in the same geographical area, but some fall in segment one and some in segment two. Looking at your four segments, you can decide what the best operating model is with which to serve them. This way you have pegged the cost-to-serve to the customer, appropriately to enhance profitability. And you monitor this over time and modify as necessary. Thus, you transform unprofitable customers into profitable ones.[4]

4) Richard Sharpe, Competitive Insights, 2016.

THE 3PL PERSPECTIVE

The plug-and-play supply chain, well executed, has the potential to generate a huge payoff.

Gary Keatings, Global Head, DHL Supply Chain's Solution Design Center of Excellence, offers a third party logistics service provider's perspective on why and how.

PLUG-AND-PLAY'S REAL PAYOFF

Looking ahead to 2020, we realized that if we want to thrive in our industry, we needed to support our customers by offering smarter solutions. This means delivering the same high level of service, but moving away from the static view that people had of contract logistics in the past where a customer says, 'here's my supply chain, give me an RFP to operate it.' We would agree to a solution and enter into a three-to-five-year contract to service that customer.

But, we were all deluding ourselves that the customer requirements would remain static and therefore the model we had built would operate successfully throughout the life of the contract. That static approach has some advantages from a procurement standpoint because presumably you can commoditize the service provided in the contract over time, so the price decreases over the life of the contract. Ultimately, that's not effective from a supply chain optimization point of view. You are not building in the ability to understand and react dynamically to change.

What we really needed to do is to understand demand as it occurs, and convert that to a dynamic rather than fixed supply chain strategy. This means calculating how much inventory to build, where to hold it, and how to transport it. To do that, we need a good cost-to-serve model that allows us to understand which products make a profit and which are loss leaders. That's a very difficult calculation because the myriad pieces of information required to get the whole picture come from sources that are not connected today.

However, the ability to do this is now within reach. It is absolutely possible with the new breed of data analysis and network design tools to set up a dynamic, optimized supply chain capable of reacting and even anticipating fluctuations. This is what we're working with our partners on.

But the opportunity for us as a 3PL is to take this work beyond just day-to-day optimization for one customer at a time. Instead, we can build a data warehouse, and flow all the information we have about a customer or group of customers through it, interrogate it and leverage the business intelligence we glean to calculate the current cost-to-serve for each product line or market. We then use this intelligence to adjust the supply chain strategy dynamically.

Thus, we become a layer of supply chain intelligence for our customer, to help them optimize the supply chain in real time, in a way that is not happening today. This is a real paradigm shift. Many of our global customers run a series of regional and local supply chains that are all franchised under the same brand. This new paradigm requires process standardization and harmonization on a global scale. This is complex, difficult work, and requires a very skilled staff and a big investment in systems. But think about the potential payoff. If, because of your dynamic supply chain, you can bring a new product to market six months before your competitors, you corner the market. What is that worth?