



THE TRUE COST OF FRAGMENTED INBOUND:

What Large Retailers are Losing to Unmanaged Supplier Freight

EXECUTIVE SUMMARY

Large retailers operate under a costly assumption: that supplier-arranged freight is free. Because shipping costs are embedded in product pricing rather than invoiced separately, most retailers have never calculated what fragmented inbound is actually costing them. This report proves that the true cost is significant and is hiding in plain sight across four distinct areas of the business.

The predominant inbound model, where each supplier independently arranges its own freight, generates measurable, recurring losses that rarely surface in standard financial reporting. For a retailer managing 500 or more supplier relationships, those figures reflect a structural problem rather than an operational one.

The four cost categories most retailers are underestimating are chargeback processing costs, OTIF-related operational losses, cold-chain shrink and spoilage, and DC labor inefficiency driven by unscheduled arrivals. Each is measurable, but none show up together on a single financial report.

There is also a serious visibility gap compounding the problem. Only 6% of businesses report full supply chain visibility, and the industry loses an estimated \$95 billion annually as a result. When inbound data lives in carrier and supplier systems that the retailer doesn't own, retailers can only be reactive when disruptions occur.

A managed consolidation program addresses each of these cost categories at the source, shifting compliance enforcement, carrier accountability, and cold-chain management upstream before freight ever departs its point of origin.

This report provides a framework for quantifying the inbound cost baseline, a set of internal diagnostic questions, and a path toward evaluating whether a consolidation program is the right path.



THE FRAGMENTED INBOUND PROBLEM

Most large retailers do not manage inbound freight as a system. Instead, it's a mosaic of hundreds of individual supplier arrangements, each operating on its own terms, with its own carrier relationships and timelines. A retailer working with 500 or more suppliers is, by default, managing 500 or more simultaneous freight decisions.

Currently, supplier-arranged freight is the predominant model. Suppliers choose their own carriers, negotiate rates, and coordinate shipments. Retailers don't control shipping schedules, which can be a problem when they don't align with DC receiving windows or inbound processing capacity.

Retailers also absorb any downstream consequences (such as dock disruptions, compliance penalties, and inventory gaps) despite having no say in the shipping decisions that caused them.



Here's what that looks like from the retailer's perspective:

- ▶ Trucks arrive unscheduled or outside appointment windows
- ▶ Pallets come in mixed configurations
- ▶ Receiving gets backed up due to dock disruptions

As [Noatum Logistics observes in its analysis](#) of fragmented supply chains, the lack of integration between supply chain stakeholders leads to disjointed operations and systemic silos. A different party often handles each stage of the inbound journey without central orchestration. This problem multiplies with each additional supplier added to the network.

Some larger retailers attempt to rein in the chaos through vendor compliance manuals and routing guides. These documents can specify approved carriers, service levels, packaging requirements, and delivery windows.

But the problem is that a retailer's authority ends at its own four walls. In practice, routing guides are routinely ignored and misapplied. Enforcement is reactive and nearly impossible at scale. There is no central party accountable for ensuring every inbound shipment adheres to the standards. Retailers can only identify violations after the fact, when suppliers are penalized with chargebacks. Those routing guides become less a preventive standard and more a benchmark for recovering the cost of non-compliance.

Fragmentation is not an edge case. It is the reality across the industry, even among well-run retailers.

One of the most costly misconceptions is that supplier-arranged freight is “free” for the retailer. The truth is, instead of the retailer seeing a separate freight invoice, the supplier’s shipping cost is buried inside the product price. That lack of transparency also obscures any opportunity for the retailer to manage it.



Here’s what that means in practice:

- ▶ Every time a supplier ships a partial truckload because it couldn't consolidate volume, the retailer absorbs that inefficiency.
- ▶ Every time a supplier uses a premium carrier because its preferred provider had no capacity, that markup is passed through.
- ▶ Every time a shipment arrives outside a delivery window and triggers overtime at the DC, the retailer absorbs the cost.



Retailers can't measure the true cost of inbound freight because it simply isn't disaggregated from the product's cost. They have no way of negotiating carrier rates they don't control.

These financial consequences are measurable. [In a 2024 supply chain survey conducted by Averitt](#) that polled 989 logistics and procurement professionals, 39.53% of respondents identified “higher overall costs as a major challenge when using multiple transportation and logistics providers.”

The coordination burden compounds when technology is factored in. In the same Averitt survey, 31.75% of respondents cited “coordination and communication difficulties as a significant challenge when using multiple transportation and logistics providers.”

For a retailer with hundreds of suppliers, these structural challenges feel inevitable. After all, the system was designed this way. Retailers managing multi-supplier networks - often with 500-plus supplier relationships - are going to experience coordination failures.

Currently, coordination failures are built into the system. But the costs they generate are not built into any budget.

THE FOUR COST CATEGORIES RETAILERS ARE UNDERESTIMATING

Most retailers are not aware of the full magnitude of what fragmented inbound is costing them. That's because the costs don't show up in one place. They accumulate across four distinct areas of the business.

Chargeback Costs

A chargeback is a financial penalty a retailer deducts from a supplier's invoice when a shipment fails to meet compliance requirements. Late deliveries, incorrect pallet configurations, missing labels, and documentation errors can all trigger chargebacks.

For retailers, chargebacks are a cost recovery mechanism. But that doesn't mean they don't come with their own costs. Administrative resources must be dedicated to processing violations. Every disputed chargeback requires staff time to investigate and resolve. Multiply that across hundreds of suppliers and thousands of annual shipments, and chargeback management becomes a significant operational burden - one that rarely appears as a line item in any inbound cost analysis.

OTIF Penalties

On-Time In-Full (OTIF) is the metric used to measure whether suppliers are delivering the right quantity of product at the right time. Fines for non-compliance vary across major retailers, but similar to chargebacks, they're a method for recovering losses after the fact.

For retailers managing hundreds of suppliers each arranging its own freight, OTIF failure is a systemic problem. When product arrives late or short, the retailer absorbs the downstream consequences. These can include labor costs, missed replenishment windows, and lost sales. The fines may flow back to suppliers, but the operational and lost revenue impact lands on the retailer.



Cold-Chain Shrink and Spoilage

For retailers that sell temperature-sensitive products such as dairy, deli, meat, produce, and frozen goods, the inbound freight journey is where cold-chain integrity is most at risk. Even if products aren't visibly spoiled on arrival, cold-chain breaks shorten shelf lives, accelerate bacterial growth, and can create food safety liability down the line.

According to [Genedge](#), approximately 14% of food produced globally is lost between harvest and retail. Products can spoil in transit, at the loading dock, and during receiving delays caused by uncoordinated arrivals. For large retailers managing high volumes of perishable products, cold-chain shrinkage is one of the most expensive and least visible cost categories in the entire operation.

DC Labor and Receiving Efficiency Loss

Labor is one of the highest controllable costs inside a distribution center, typically accounting for 45-60% of total DC operating expenses, [according to Buske Logistics](#). When inbound freight is uncoordinated and unpredictable, labor costs become difficult to manage.

Problems like unscheduled arrivals and dock congestion are direct byproducts of supplier-arranged freight. The receiving operation absorbs all of the disruptions, hurting efficiency and driving up labor costs.

THE VISIBILITY GAP

These four cost categories share one thing in common: most supply chain and logistics teams can't accurately report on any of them. Visibility is the foundation of cost management, and a leadership team can't challenge what it can't measure.

[Just 6% of businesses](#) report having full supply chain visibility, and companies are losing [an estimated \\$95 billion annually](#) as a result of logistics visibility gaps.

These figures reflect coordination issues between suppliers, carriers, and retailers. Freight handoffs are happening hundreds of times a day with no central oversight.

The core issue is structural. When hundreds of suppliers each arrange their own freight, use their own carriers, and operate on their own systems, inbound data doesn't flow to the retailer. Important data points (such as shipment status, carrier performance, delivery timing, and temperature compliance) all reside in systems the retailer doesn't own and can't access in real time.

That lack of visibility carries a hefty price tag.

When a retailer can't see its inbound freight in motion, it can only react after the damage has already been done, through chargebacks, expedited orders, and overtime wages. Burying these costs in other areas of the business makes the financial reporting around inbound logistics murky and imprecise.

The way supplier-arranged freight is priced makes the visibility problem even harder to address. A product's landed cost is the total cost of bringing a product from a supplier to the warehouse. It includes the product cost, freight fees, inbound freight-related overhead, and any additional fees. Since freight costs are absorbed into the landed cost, retailers lose the ability to review them as a separate line item.



The result is a compounding blind spot.

- ▶ Chargebacks are processed reactively, without connecting them back to the carrier decisions that triggered them.
- ▶ Chronic OTIF failures chip away at retailer profitability.
- ▶ Cold-chain breaks go undetected until shrink shows up in the write-off report.
- ▶ DC labor overruns get absorbed as operational variance rather than attributed to unscheduled arrivals.



The supplier-arranged freight model was built to move products from a supplier to a retailer as simply as possible. It was never designed to capture, track, or report on the costs it generates along the way.

Yet those costs keep accumulating. They show up in labor budgets, write-off reports, compliance penalty logs, and expedited freight invoices. Each line item appears across different departments and systems. No one is looking at all of them together and calculating the true cost of fragmented inbound.

These costs aren't invisible because they're small. They're invisible because the system that generates them was never built to report on them. And what retailers don't know is costing them more than what they do know.

WHAT CHANGES WITH A MANAGED CONSOLIDATION PROBLEM

The costs outlined above are the predictable result of a decentralized system. But a managed consolidation program produces measurably different outcomes.

If the goal is to move product from production to shelf as efficiently as possible, retailers need a single, consolidated distribution network. Instead of coordinating shipments from hundreds of individual suppliers, the retailer works with one trusted partner that aggregates everything into one streamlined system.

Here's how the consolidated approach impacts the four cost categories:

Chargeback Reduction

Chargebacks are largely a compliance problem. Under a fragmented inbound model, chargebacks are inevitable because compliance failures happen upstream, outside the retailer's control.

A managed consolidation program moves compliance enforcement to the point of origin. Pallet configurations, labeling requirements, and documentation standards are addressed before freight departs, not after it arrives. When compliance is managed proactively, chargebacks are minimal.

OTIF Performance

OTIF failure under a fragmented model is a coordination problem. Delivery timing is only as reliable as the least consistent carrier in the network.

A managed consolidation program eliminates that variability by moving freight through a managed carrier network on coordinated schedules, built around retailer DC receiving windows. Fewer carriers, standardized routing, and centralized scheduling replace the unpredictability of hundreds of independent freight decisions.



Cold-Chain Integrity

For temperature-sensitive product, the inbound journey is where cold-chain risk is highest. Temperature excursions are among the most frequent and costly causes of food spoilage in retail supply chains.

🕒 A managed consolidation program addresses that structural risk.

- ▶ Freight moves through temperature-controlled facilities.
- ▶ Load planning is coordinated to minimize handling events.
- ▶ Arrival scheduling reduces dock wait times.

Fewer handoffs mean fewer opportunities for temperature breaks. For retailers managing high volumes of perishable product, that structural reduction in cold-chain exposure translates directly into lower shrinkage and fewer food safety incidents.

DC Labor and Receiving Efficiency

The labor-cost impact of fragmented inbound is driven by unpredictability. Warehouse staffing decisions are built around scheduled arrivals, but fragmented inbound makes scheduling unreliable. DC throughput becomes a logistical nightmare when hundreds of suppliers ship to the retailer.

🕒 A managed consolidation program restores predictability to the receiving operation.

- ▶ Scheduled, compliant deliveries arrive within coordinated windows.
- ▶ Receiving staff can be reliably scheduled.
- ▶ Dock congestion decreases.
- ▶ Unplanned overtime becomes the exception rather than the rule.

Shifting from fragmented to consolidated inbound reduces costs and centralizes accountability. Under a fragmented model, the retailer absorbs the consequences of decisions it never made. Under a consolidated model, one partner owns the outcome.



FIXING THE FRAGMENTED INBOUND PROBLEM

The data is clear: fragmented inbound is costing large retailers more than their current reporting reveals. The first step is to evaluate internal processes to identify pain points and hidden costs.

? Ask Internal Questions Before Evaluating a Consolidation Program

Before engaging an external partner, discuss these questions with internal teams:

- ▶ How many carriers are currently touching our inbound freight across all supplier relationships?
- ▶ Who internally owns accountability for inbound freight performance across all suppliers?
- ▶ What percentage of our suppliers are consistently meeting our routing guide requirements?
- ▶ Who internally owns accountability for inbound freight performance across all suppliers?
- ▶ What is our current OTIF non-compliance rate, and how much of it is carrier-driven versus supplier-driven?
- ▶ What percentage of DC receiving labor overruns are attributable to unscheduled or late arrivals?
- ▶ Do we have real-time visibility into inbound shipments across our supplier base?
- ▶ When did we last audit the freight cost assumptions built into our supplier pricing?
- ▶ How much staff time is currently dedicated to chargeback and OTIF management?
- ▶ How confident are we in our cold-chain integrity between supplier origin and DC receiving?
- ▶ If a major supplier changed carriers tomorrow, would we know about it before the truck arrived?
- ▶ Can our current inbound model scale as our supplier base grows?
- ▶ Are we making inventory and replenishment decisions based on reliable inbound data?

Quantify the Inbound Cost Baseline

Most retailers don't have a single report that captures true inbound cost. Building that baseline requires pulling from several sources across the organization:

Calculate the operational cost of chargebacks.

Pull the chargeback log for the last 12 months. Then estimate the staff hours spent processing, investigating, and disputing them. Multiply by the total cost per labor hour, including benefits and overhead. That is the total operational chargeback cost.

Calculate the operational cost of OTIF failures.

Pull the OTIF non-compliance report for the last 12 months and identify the shipments that arrived late or short. For each category, estimate the lost sales revenue from stockouts, the cost of any expedited reorders placed to fill inventory gaps, and the labor hours spent managing the disruption at the DC. Those figures represent the true retailer cost of OTIF non-compliance.

Calculate inbound-attributable shrink.

Run a 12-month shrink analysis by temperature-sensitive category - dairy, deli, meat, produce, and frozen. Isolate what percentage of that shrink is occurring pre-sale, at the DC, or during inbound transit, rather than at the store level. Any shrink occurring before product reaches the shelf is inbound-attributable loss.

Calculate the labor cost of inbound unpredictability.

Pull the DC labor variance report for the last 12 months and compare scheduled labor hours to actual hours worked in the receiving operation. The gap between scheduled and actual - particularly overtime hours - is the direct labor cost of unscheduled and late arrivals.

Calculate the hidden cost of landed cost assumptions.

For any supplier relationship where freight is embedded in the product price, it may not be possible to fully capture the true cost. To estimate the scale of this blind spot, pull the freight cost assumptions built into the top 20 supplier relationships and identify when those assumptions were last reviewed. A landed cost model that hasn't been audited in a while is likely absorbing freight inefficiencies.

The inbound cost baseline is the sum of these five cost centers. For most large retailers, it is the first time those numbers have ever appeared in the same place at the same time.



What to Look for in a Consolidation Partner

Not all consolidation programs are built the same. For retailers evaluating a managed inbound program, the difference between a partnership that works and one that simply adds another layer of complexity comes down to a few critical capabilities. The right partner makes inbound freight predictable, compliant, and measurable.

Cold-Chain Capability and DC Network Coverage

Temperature-sensitive product logistics require a partner with existing infrastructure. Look for temperature-controlled facilities at every consolidation point, a distribution network with geographic coverage that aligns with existing DC locations, and demonstrated experience handling refrigerated and perishable goods at scale.

Retail Compliance Expertise

A consolidation partner should do more than move freight. It should deliver product that is shelf-ready and retail-compliant upon arrival. That means having the capability for repacking, labeling, kitting, pallet prep, and multi-packing. These services should be built into the program, not outsourced as an afterthought.

Supplier Onboarding and Participation

The strength of a consolidation program depends on supplier participation. Ask how the partner onboards new suppliers, what the participation requirements look like, and how quickly the program can scale. A program that is difficult to join will struggle to deliver the consolidation efficiencies it promises.

Reporting and Visibility Tools

Visibility will separate a managed program from a fragmented one. A consolidation partner should provide chain-of-custody visibility across every shipment. If a partner can't communicate about where freight is or how it's performing at any given moment, the visibility gap outlined above has not been closed.



TALK TO SCHREIBER HORIZON ABOUT A COST ASSESSMENT

Coming up empty-handed on any of these questions or cost inquiries is not a result of poorly-run operations. It's a reflection of how the supplier-arranged freight model was designed: without the reporting infrastructure to make true inbound cost visible.

Schreiber Horizon built The Hitch to solve this problem.

Since 1945, Schreiber has operated one of the most complex food and beverage supply chains in the industry. Schreiber has managed these same inbound challenges at a scale that few organizations have experienced. The solutions that came out of these decades of experience are now available to retailers that are ready to bring their inbound operation under centralized, simplified management.



We know that consolidating fragmented inbound freight under one system offers cost savings and operational simplification.

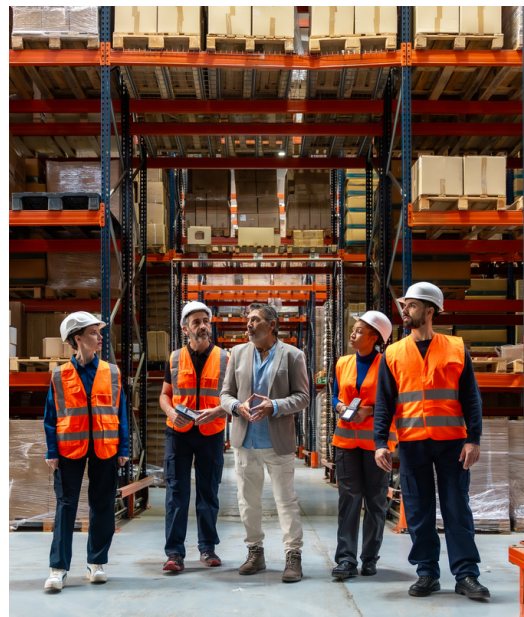
- ▶ Retailers gain a streamlined, compliant, cold-chain-managed inbound program.
- ▶ Suppliers gain lower order minimums, simplified logistics, lowered risks for OTIF and chargeback penalties, and retail-ready deliveries.

The entire system benefits from one truck, one delivery, and one trusted partner, replacing dozens of uncoordinated supplier shipments.

The first step to exploring such a consolidation program is a complimentary inbound cost assessment for qualifying retailers. Our team will work through the baseline assessment steps outlined above, identify where fragmented inbound is generating the most cost, and model what a consolidated program could look like.

The horizon isn't a distant goal. It's where the next opportunity begins.

[Request a Cost Assessment](#)



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