COSTA SOLUTIONS™

Information, Insight, and Intelligence:

How reporting and technology are the keys to improving warehouse operations.

Optimizing both service and cost performance poses a perennial challenge for warehouse and distribution center operators. Enhanced information reporting can ensure your organization is equal to the task.

Appreciation for the value of analytics and in-depth information reporting is exceptionally high among supply chain professionals: according to a survey from industry analysts at KPMG, 97% of executives say they understand the value of data in the supply chain. Yet only 17% have implemented such functionality.[i]

The right reporting can enable warehouses to answer their most pressing questions, make functional improvements, and accurately predict and forecast business results.

Cultivating, analyzing, and using such data is not easy, however, for warehouse, DC, and other supply chain operators. Such organizations often lack the technological platforms, analytics-oriented talent, and/or strategy and processes to support these initiatives.

Fortunately, gathering good information isn't as difficult as many warehouse operators often believe.

Third-party vendors already working with them can often participate in this process by utilizing advanced, niche-specific tools and expertise. They can provide valuable information and insight into their areas of operations via enhanced reporting, while easing the burden on warehouses and distribution centers (DCs) to procure good information.

But what is the "enhanced" reporting that warehouses should be seeking from their partners, and how does it translate into bottom-line benefits? Those are the questions this paper will answer.

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Improved information visibility makes it possible to **identify opportunities to optimize** performance and improve operations.

It starts from the moment of arrival. Consider: a shipment has just hit the docks. To unload the truck quickly and efficiently, many moving parts (and people) must synchronize. A lack of visibility into operations can thwart that goal.

For example, a flawed check-in or check-out process can impact the entire experience that follows by creating or worsening dock congestion. Even just the time and labor required to physically find the driver and communicate the next process or stage can cause further delays to stack up in subsequent procedures.

Making the process more efficient can, by contrast, significantly compress receiving schedules. This is where a modern, technology-empowered reporting solution can make a difference: a single dashboard can allow warehouse operators to view and manage every step and interaction from arrival on-site to release and departure.

Some platforms make it possible to communicate with drivers by text message as soon as the unloading process has finished. By getting drivers inside more efficiently, in order to pay or pick up bills, it becomes possible to reduce average time per inbound/received Common Carrier (CC) on-site by 20 minutes. Streamlined communications between warehouse owners and any vendors also improves response times and hand-offs between stages (e.g., ready for tagging, move to racks, clearing docks, etc.).

Altogether, the compressed operating model could result in average reduced time on-site of 20-30 minutes per CC, reducing the receiving schedule by up to 120 minutes per day per dock.

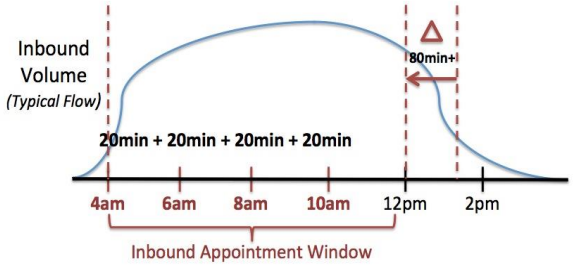

Figure 1. *Shrinking the receiving schedule by 80 minutes over the course of a day.*

Then, efficiency gains can further aggregate as upstream improvements ripple downstream. Although "truck time at dock" is an often under-appreciated key performance indicator (it doesn't even make the top 12 list of top warehouse/DC KPIs used, according to *Supply Chain Digest*[ii]), it can have serious downstream ripple effects on the key performance indicators warehouses *do* value. Reducing truck time at dock, for instance, can shrink dock-to-stock cycle times and optimize lines received per hour.

Given that receiving accounts for 15% of the average warehouse's operating expenses, there's money to be saved as well.

Fortunately, if the warehouse or DC operator is armed with solid, time-stamped data, they can often pinpoint specific problems or inefficiencies, e.g. failure to clear sufficient space on or near the dock from new arrivals, or lengthy manual procedures that require more time than is available between arrivals (which could cause trucks to "stack up" as they wait to be unloaded).

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The right reporting can **bridge "the missing link between metrics and strategy,"** generating the insight needed to identify and improve upon inefficiencies.

> **"The obvious problem usually is not the actual root cause, and the team will have to drill down to find the underlying reasons for the failure."**

"Historically, when product moved from a trailer into a warehouse, it was as if the shipment entered a big blank box you couldn't see into," Jim Gaskell, director of global Crown Insite products for Crown Equipment, a materials handling equipment manufacturer, told *Inbound Logistics*.[iii] "Today, companies need to continue to monitor those products—and the equipment and labor handling them—throughout the warehouse."

Greater visibility into the supply chain opens the ability to monitor the moving parts of an operation – companies can develop contingency plans to deal with changes that can affect the movement of goods.

It becomes possible to see exactly what's happening (plus where and why) and identify what factors can be altered to produce improved outcomes.

Such insight can be critical to bridging "the missing link between metrics and strategy," as *Supply Chain Quarterly* wrote in its most recent annual "DC Measures Study," which is produced in conjunction with the Warehousing Education and Research Council (WERC) and sister publication *DC Velocity*:

> "The obvious problem usually is not the actual root cause, and the team will have to drill down to find the underlying reasons for the failure."[iv]

Any vendor that participates in this process should be able to generate reports or data that can highlight areas that can be improved upon. Ideally, they should offer a platform accessible via personal devices that can share this information in real-time (see Figure 2).

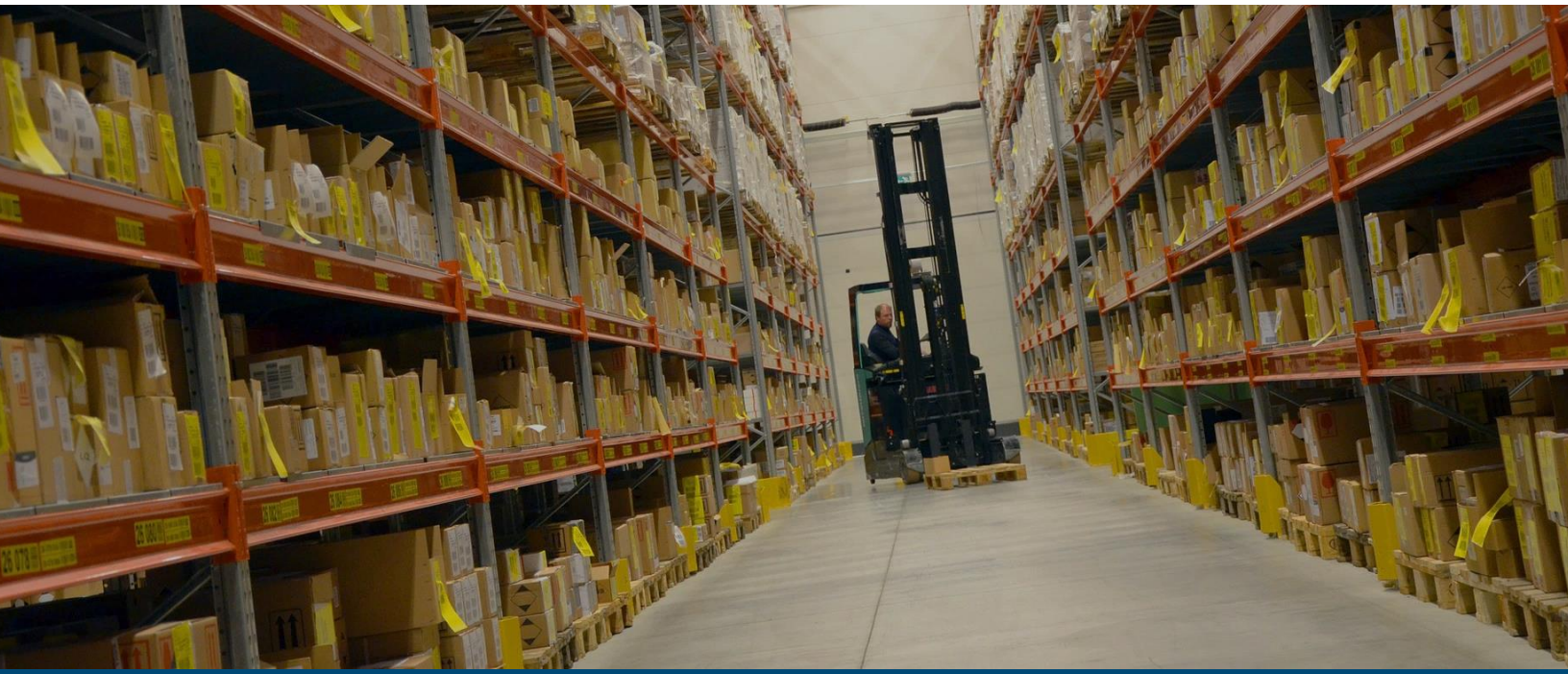
Increased process visibility, then, allows operations/leadership to monitor and manage flow in more efficient ways, and track performance trends over time.

All of this information and insight can be used to draw out efficiency solutions hiding in plain sight.

Figure 2. *Reporting dashboards enable users to consume complex, intricate information quickly and easily, at a glance.*

For instance, another flaw that can strike unloading procedures is when special equipment (like forklifts) are not immediately available at the time of need – they might be on the opposite side of the warehouse due to previous use or awkward transit routes within the warehouse.

By optimizing forklift routes, a supplier can thus realize greater time efficiencies. Or by increased cross-docking (moving inbound cargo immediately to an adjacent outgoing dock), it might be possible to keep equipment like forklifts from having to move across the full warehouse.



It's not just operational processes that benefit; good information visibility means **labor improvements** with less manual labor.

> **"More intelligent, predictive scheduling has been found to generate 7% year-over-year savings in labor costs."**

Labor KPIs are another set of metrics, like the "truck time at dock" discussed above, that can go overlooked; yet they underpin almost every major KPI typically monitored.

For example, if you want an industry-leading dock-to-stock cycle time of under 2 hours, you need enough people working each shift, each working as fast as possible.

Given that the workforce represents 45-50% of the operational costs of an average warehouse, reducing labor costs per unit handled will immediately yield cost savings. [v]

This information can be used predictively as well. For instance, if you know it takes X hours with Y employees to run 100,000 lines, it's simple math to predict how much labor will be needed to handle the volume of the next shipment in a desired amount of time.

Add in more advanced predictions, like demand forecasting, and a warehouse can right-size its staff for each shift's needs.

"Forecasting can go a long way to lowering costs and ensuring the success of inventory management efforts," writes David Anderson of SalesWarp order management software.[vi]

More intelligent, predictive scheduling has been found to generate 7% year-over-year savings in labor costs, while also reducing the time (by 7 to 15 hours per pay period) managers spent handling scheduling issues. [vii]

In warehousing, it's all the more important to handle labor efficiently given the "unprecedented labor shortage" among warehouse workers, according to the 20th Annual Third-Party Logistics Study from the Council of Supply Chain Management Professionals.[viii]

All of this advanced number crunching, however, depends on good information being provided from reliable sources. In fact, the information can even be used to establish and verify the reliability of the partner.

Enhanced reporting that comprehensively documents warehouse processes like unloading should be a core component of any program **to ensure vendor accountability.**

> **“In fact, that depth of information gives the warehouse or DC operator tools they can use to push back on carrier costs.”**

Ask your vendor what information they can provide to help evaluate productivity and overall performance.

Some vendors can provide a stream of real-time data, while others will have specific reporting capabilities. That information makes it possible to assess responsibility for specific problems, like damaged stock. A staffing partner should be able to present a complete picture of what happens from the moment their people step instead a truck until hand-off or put-away.

Optimally, the reporting will include visuals, such as an opening and closing picture of the stock and truck. Along the way, they document the product that’s been packed or unloaded, record it and cross-reference with the purchase order, and gather any additional elements (e.g., the driver’s signature) as needed.

In fact, that depth of information can shed insight not just into the vendor’s performance, but also the carrier’s – which gives the warehouse or DC operator tools they can use to push back on carrier costs.

If there are problems, the records should help pinpoint areas of need. For example, the industry best practice is to put away product on the day of receipt, but this doesn’t always happen. Cargo that sits on the docks faces an increased chance of damage from frequent shifting to make room for new incoming freight. Time-stamped reporting can capture what happens to cargo, at what intervals of time.

Product (and people) can also be damaged if workers have to jump from a high elevation to a lower elevation. Reports of damaged goods or injuries can be cross-referenced by location in order to determine if a particular area inside the warehouse is especially vulnerable.

In other words, the documentation should protect and strengthen the warehouse’s or DC’s own best interests.

Conclusion

With the clear visibility into all of the factors affecting performance that comes with enhanced reporting, warehouse and DC operators can spot opportunities to cut cost and inefficiency

Industry analyst Accenture writes, "Supply chain operations must gear up to adopt a modern digital supply network model enabled with advanced analytical capabilities and fast."[ix]

And that appears to be exactly what is happening. Deloitte's 2015 study found that, while over half (53%) of retailers and manufacturers already use demand forecasting, for example, in making supply chain decisions, an additional 43% expect to start using it.[x] Better yet, with a solid foundation of continuous, high quality reporting – including good information being supplied by expert third-party partners – operators can pull themselves out of a backwards-looking, reactive approach to management and start getting ahead of trends over time and future forecasts.

Altogether, information fuels the business intelligence that yields continuous improvement, the only way for modern warehouse and DC environments to meet future business objectives and stakeholder mandates.

Take Action

Synchronize with your vendors, suppliers and other logistics partners to determine what information they can procure and share.

In a data-dependent marketplace, information itself has become a valuable commodity. Any logistics and supply chain vendor offering best-in-class service in today's competitive world will be able to supply high-quality, actionable data to you through a means you can easily consume and use.

That said, it may take some outreach and negotiation to determine what kinds of enhanced reporting they can provide, through what means, and at what intervals. Fortunately, getting started with the conversation is easy as pie: just ask, if they haven't already offered.

By **Josh Wean**, Chief Operating Officer of **Costa Solutions**, with **Kimberly Webb**, Director of Sales and Marketing, and **Darrin Gannaway**, Director of Information Technologies

Costa Solutions was founded on the values of character, ownership, service, team, and attitude. Our culture embodies these values, and we live them out every day in all we do for our customers, our community, and each other. Founded in 1988, Costa Solutions was built on the basic principle to help our customers 'Thrive!' Accordingly, for more than 25 years, our trusted and dedicated family of employees have passionately served the Central Texas Region with integrity and excellence. We are a faithful supporter of our communities and serve through volunteerism, community outreach and giving. Simply put, we are a growing company that specializes in solving needs with simplicity and excellence.

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