

Supply Chain Management:

The What-Ifs of

OTIF



What percentage of your deliveries are made OTIF—on-time and in-full? If you're not using this simple metric, you may be performing far worse than you think—and suffering the consequences. Here's the inside advice from a consultant who shows dealers how to make products move more efficiently through their operations, from the sales desk to the jobsite.

By Ruth Kellick-Grubbs

See
Foldout 

Supply Chain Special Feature The What-Ifs of OTIF

How good are you? Is that good enough? Financial numbers have been all over the board recently; many are deep red or barely black. One sure way to improve the bottom line is to improve process execution. This is what I call “getting the right stuff to the right place at the right time, in the right location on the jobsite, in the right condition with the right invoice—all day, every day.”

Getting it right the first time drives down costs and improves customer satisfaction. A great way to help your organization improve on execution is by measuring OTIF: your on-time and in-full delivery performance.

I like OTIF because it measures the whole company and the performance at each step. This isn't simply an operations report card; OTIF is a roll-up measure. To perform well on OTIF, everything that goes into it has to be correct. The takeoff and order entries have to be correct; purchasing has to maintain appropriate inventory levels; material has to be handled correctly, pulled correctly, staged and loaded correctly. OTIF is a *companywide* report card.

It's also a proxy for customer satisfaction. Industry research conducted by PROSALES documents that the majority of all items that comprise “service” for builders and remodelers comes down to “getting what they want, when they need it.” If you measure nothing else in your business besides sales and margins, measure OTIF.

The greatest value in measuring OTIF is that it allows you to see at a glance how the company is doing. Drilling down into why OTIF is moving up or down displays problems in the company.

When Koopman Lumber executives in Whitinsville, Mass., started measuring OTIF, they quickly saw a problem in their communication



loop with purchasing. Buyers weren't immediately told of low inventory levels, which meant yard staff sometimes were substituting product or picking up material from one of their other locations to fill an order. So the Koopman team created an instant feedback loop. All operations personnel are responsible for communicating low inventory levels. The execs added a form on Koopman's Intranet where low inventory levels are entered and immediately e-mailed to purchasing. The result: fewer out-of-stocks and intercompany transfers.

Honest Assessment

Often, when I ask if a company measures OTIF, the answer is no. Why not? The popular answer is, “We're really good at that, so we don't need to measure it.” Next, I ask, “How would you say your company is performing on OTIF?” I almost always hear, “95%—or better.”

I don't doubt that these dealers believe that's their performance level, but my research shows they're overly optimistic. In some cases it's a matter of understanding exactly what OTIF should measure.

The on-time part of OTIF is best



defined as *the commitment your organization has made to the customer*. Whether it was to deliver “first out,” “before noon,” or simply “on Tuesday,” whatever commitment your company has made should be the measurement. If you delivered it by your promised time or day, you’re on-time.

In-full is just as stark a metric. It’s not a hardware supplier’s fill rate, where delivery of 90% of the order equals a fill rate of 90%. Your builder doesn’t rate your in-full performance at 90% if he only receives 90% of the framing lumber he ordered. If the delivery is missing material—for whatever reason—it can’t be counted as arriving in-full. Period.

If there’s a backorder or a substitution (e.g., 12s for 10s), the order is not in-full. If you’ve pulled material from another location, the order is not in-full. If you’ve picked up material from another supplier and delivered the order, it’s not in-full, even though the customer may not know or notice.

We use this yardstick because we’re measuring how well your whole company performs. While substituting 12s for 10s may not seem that big an issue, it is. It highlights a weakness (and increased cost) in your purchasing/inventory management systems. It may be that an unusually large order was placed and typical inventory levels were insufficient. If so, sales didn’t communicate well enough with purchasing. Or, like Koopman Lumber (and many others), it may simply have been that the communication system wasn’t immediate enough. Something about the process isn’t working well enough to ensure that your company gets it right the first time.

If you’re not measuring OTIF now, it’s an easy bet that your organizational performance isn’t as good as you might think. The only dealers I’ve seen operating in the 90s are measuring and managing their systems to drive an OTIF level that high. I used

“We were overwhelmed initially, trying to figure out how we were going to measure OTIF,” says Tony Brookhouse, co-owner of Koopman Lumber, “but it actually was manageable. It’s like going to the gym; you just have to force yourself to do it.” Here are some rules of the road.

1) A delivery day and/or time must be on an order. You may need to educate or coach your sales staff on what acceptable commitments are (e.g., first out Wednesday) and are not (e.g., “as soon as we can”).

How Do You Measure OTIF?

2) Track performance on each order.

Your computer systems may be able to automate this if you’re using GPS on your vehicles.

However, technology isn’t necessary to track OTIF. I have several clients that simply use a check mark for “on-time” and an ‘X’ for “not on-time.” The dispatcher marks the invoice when the orders go out. Personnel handling the invoicing collect the data and record it in a simple Excel spreadsheet. This includes assigning reason codes to any items that aren’t “in-full.”

3) Record why the order wasn’t shipped on time or in-full. Reason codes are noted on each item missing from an order. Typical codes include: incorrect receiving; don’t have product; vendor shipped late; product damaged on yard, and out-of-stock. Including reason codes enables management to drill down effectively to problem areas.

4) Solve problems as they are spotted. For example, if your on-time percentages start falling, you might find the issue is that sales is making unrealistic commitments (e.g., first outs are tremendously overbooked). It’s time to create a system fix. Maybe the solution is providing visibility for sales on the first-out slots, so they know or can check how many are available at any given time. Maybe it’s the visibility and cutoff times (orders in by 11 a.m. for same-day delivery and in by 3 p.m. for next-day delivery). Whatever the solution, the key piece is that folks from several functions are now involved in solving a performance problem that affects them all.

5) Expect the data-gathering effort to take a while at first, then get easier. “When we started tracking OTIF, we spent 30 to 45 minutes a day on capturing the information,” says Koopman vice president of operations Eric Sampson. “Now we’ve got the system down, and it takes us five to 10 minutes a day.” Since OTIF is an at-a-glance metric, management can see easily how the company is performing. Details driving the performance are there when needed.

It doesn’t matter whether you track it with advanced technology, an Excel spreadsheet or simply by hand—it still works. You can measure this. And the benefits of doing so are compelling. —R.K.-G.

to see OTIF levels in the 30s and 40s when companies would begin to measure their performance. Today, some see measures in the 50% to 60% levels when they begin. The “improvement” is largely because of softer sales demand and excess delivery fleet capacity, making it easier to deliver on-

time. Many dealers also have been heavy on the inventory side, making it easier to deliver in-full.

Executives at Wheeler’s in Rome, Ga., had been working on their delivery systems before they began measuring OTIF. They fully expected to see a performance level in

the 90s. Initially, the level was 70%.

Replacing your assumptions with fact is invaluable. Working with hard data and not gut feeling helped Wheeler's improve performance significantly and in short order. Within six months it had moved OTIF levels into the 90s. Incremental gains of more than 90% are hard to achieve. Today Wheeler's turns in steady OTIF results in the low to mid 90s.



Stronger Systems

Measuring performance is a tremendous catalyst. Jackson Lumber & Millwork in Lawrence, Mass., also has made the transition to measuring OTIF performance. As Joe Torrisi, vice president of manufacturing operations at Jackson Lumber & Millwork, is fond of saying, the numbers don't lie. All of my clients that measure OTIF would agree that having the data is key to achieving necessary organizational and process changes.

What changes? Permanent performance improvements require you to strengthen your underlying systems. That means finding and implementing permanent fixes—not stop-gap firefighting. For example, substituting one product for another is a short-term solution; you'll find the situation repeated over and over again. You'll also jeopardize customer service over and over. You'll also incur the additional costs over and over. It's in the best interest of all to take a hard look at what was insufficient in the system that caused the failure. Then make the process or system changes to secure a permanent fix.

Remember that on-time and in-full have to be measured together. You can be on-time 100% if you don't care about backorders. Likewise, you can be in-full all the time if you're not worried about being on-time.

Companies that measure and manage OTIF are unanimous in the value of doing so. That value includes reduced time lost to mistakes or time spent trying to locate materials, elimination of missing directions for drivers, increased accuracy, and so much more. Improving your OTIF performance boosts your bottom line by lower-

ing your operating expenses and increasing your revenue generating "time." After all, if you're improving your ability to get it right the first time, you've reduced expenses incurred from getting it right the second time (i.e., making another delivery for a backordered item). You've also increased revenue-generating time since you're not fixing a mistake.

Your gains from measuring OTIF will come from better inventory management, improvements in the sales process or quot-

ing process, greater accuracy in manufacturing or loading, and more. OTIF shines a bright light so that your gains will come from exactly where you need them most.

So ... how good are you?

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The big story with OTIF isn't your OTIF level. It's the stories you uncover and improvements you make that drive your improved OTIF level.

For Jackson Lumber & Millwork, one such story was the internal communications systems between sales and manufacturing.

Metric Might

Miscommunication resulted in materials that were produced for customers long before the customer was ready to receive them. Incorrect specs meant the wrong products were made.

"Sometimes the order dates didn't align with the customer's needs and delivery times," explains Don Piccarillo, Jackson's information systems director. "So we created feedback loops to keep the information up to date and accurate." Now, before production, e-mails are sent to salespeople requesting a confirmation of the date and accuracy of order. If the sales department doesn't acknowledge the order, it's not released to production.

Once the order is acknowledged by sales, production begins. Similar to UPS or FedEx, e-mails are triggered at key points in the production and distribution process. Salespeople are notified of the status of their orders and, in turn, can provide advance notice to their customers. This is particularly important if there are delays or changes.

"Our salespeople love the real-time information on their orders—almost as much as our customers," adds Piccarillo. This is simply one example of several that have improved OTIF performance at Jackson Lumber & Millwork. Joe Torrisi, vice president of manufacturing operations, concludes, "Measuring OTIF has been great for us. We want to keep measuring. It's really changed our business for the better." —R.K.-G.