



Mindtree

OTIF – Guidelines for Mutual Success

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Large retailers like Walmart maintain one of the most complex and nested supply chains. Supply chain efficiency is the key to keep its shelves stocked and the customers happy. The retailers rely on innumerable suppliers and partners along the way. It is important for retailers to build a solid and efficient supply chain with streamlined flow of goods, definite lead times and minimized warehousing costs. "On Time In Full" (OTIF) guidelines are therefore the key for ensuring mutual success and achieving the joint objective of supply chain efficiency and on shelf availability for retailers as well as suppliers.

What is OTIF

OTIF is an acronym for on-time and in-full. It is a measure of overall supply chain efficiency. On-time, in-full (OTIF) is not a new concept in supply chain management — it simply means suppliers should deliver their products when and how the buyer needs it.

Today, retailers like Walmart are taking aggressive measures to streamline the supply chain with this new “On-Time, In-Full” (OTIF) initiative. This latest initiative is an evolution of the retailer’s tightened delivery requirements. And suppliers, warehouses, and carriers are also able to better plan processes, because they have a plan to execute against.

Shippers must deliver all products ordered, correctly and completely, on the MABD. This means that both late and early shipments are considered non-complaint, as are orders that are under fulfilled and improperly packed items. Under OTIF, any shipments deemed late, early, under replenished or improperly packed may trigger a hefty fine.

How to Measure OTIF?

First and foremost, you need a uniform way to measure OTIF. On-time is defined as delivering the order to the customer when you promised. It is about honoring the commitment you made to your immediate customer and the end customer (shoppers) along the way.

The OTIF (On-Time In-Full) score is calculated by dividing the total number of Vendor Packs (cases) that are received at the Distribution Center (DC) within the delivery window by the total number of cases ordered. A Purchase Order (PO) is On-Time if the Arrival Compliance Date is within the delivery window. A PO is considered In-Full if 100% of the cases ordered are received. The expectation of OTIF is to have cases delivered to the DCs on-time and in-full.

Walmart will track late and missing items and assess fines equal to 3% of their value. OTIF is measured monthly, unlike the former programs which assessed fines every 13 weeks.

program. It is retailer’s intent to receive the product they order on the date they need it.

Why are retailers penalizing suppliers who do their best to ensure high on-shelf availability (OSA)? Modern consumers demand that retailers make more products available at all points of purchase. Retailers that fail to meet this expectation risk losing their customers to the competition. 100% OSA and perfect order fulfillment are essential to the success of consumer goods manufacturers in today’s environment.

Why OTIF Matters?

Delivering on your promise “at the right time, every time” remains the service gold standard. And, that’s why OTIF matters. Improving OTIF scorecard performance can have a big impact on profitability and help organizations meet or exceed the prescribed retailer standards, including adhering to multiple steps and working with several partners.

The shoppers expect to find the products they need on their shelves when they need them. When products arrive late or not in-full, out of stocks are created. When products arrive early, the retailers have excess inventory which creates stocking challenges at the delivery centers and subsequent transportation to the stores.

The retailers consider the OTIF Scorecard to be the single version of the truth. It is a factual view of inbound performance and does not filter out any PO based on root cause. For suppliers not meeting their minimum objective, there will be a monthly 3% off-invoice charge for out of compliance purchase orders that the supplier own. There will be no purchase order exclusions or disputes for this

Industry trends

As the industry moves toward greater accountability, retailers increasingly hold suppliers to account for On-Time and In-Full (OTIF) delivery. Walmart and other large retailers are already implementing penalty systems for failure to comply with promised delivery schedules. Walmart was the first to implement financial penalties on suppliers who failed to meet on-time and in-full (OTIF) delivery goals. Many other retailers are now following Walmart's lead in their quest to reduce out-of-stocks (OOS). However, the total cost of problematic deliveries is not just the OTIF penalty but also the lost sales when the product is not on the shelf.

Beginning May 2019, Walmart OTIF updates will take effect, measuring On-time case performance to separate "In-Full" from the "On-Time" performance.

The changes include an increase in fill rate goals to 95% for General Merchandise and Health & Wellness and to 97.5% for Food and Consumables.

The on-time delivery goals increase to 87% for full truckload suppliers and to 70% for less than truckload (LTL) suppliers.

The joint objective - On-shelf availability

OSA or On-shelf availability is a measure of successful retail execution. Today, the marketplace is highly competitive, and consumers have a plethora of options to choose from. Ensuring regular product availability at the POS is very important. Ensuring on-shelf availability is a joint objective of retailers as well as suppliers. There is a huge cost impact of non-compliance for both of these players while there is still vast opportunity for improvement too.

OTIF non-compliance is a big cause of lower on-shelf availability of the DC delivered products. A comprehensive view of the current status of the supply network is critical to ensuring on-shelf availability and reducing out-of-stock.

Hence the true cost of non-compliance is not just the retailer penalties. It is also the lost sales due to lower on-shelf availability and cost of losing loyal customers to the competition. But, can we measure this cost. The answer is, yes. We can make a reasonable estimation to quantify lost sales. The lost sales can be estimated using forecasting techniques and other ML algorithm. (Using the POS data we can compute the sales rate and based on that we not only quantify the lost sales but also find out root causes for failure.)

The key challenge here is applying machine learning on disparate sources of data. We are talking about DC level OTIF and store level OSA.



Root cause identification and Machine Learning

Root cause is a post event analytics. It is a rear view mirror assessment that generates insights based on historic trends. Identifying what's not working and why it's not working allows you to fix it.

Root Cause analysis and identifying lead time anomalies helps to pinpoint the operational bottlenecks and risks - Why the order wasn't shipped on time or in-full? The insights based on past trends help suppliers in rapid identification and prioritization of potential risks and root causes. This proactively improves their OTIF scores through supply chain data daily, without needing manual intervention to guide the analysis.

Key factors influencing OTIF be it related to carrier, equipment availability, warehouse, lane traffic or reasons beyond control like transit delay and more will become known and be incorporated in the journey of continuous learning.

The machine learning, on the other hand, is a forward-looking solution that helps to proactively improve OTIF scores through supply chain optimization. We can predict what the OTIF scores will be in future weeks; we can identify which orders are most likely to fail and; we can generate alerts with recommendation of timely and specific corrective action to boost OTIF scores

During this entire lifecycle of an order our machine learning engines will run real time analytics to identify and flag flaws in planning or action by any partners involved in the process. The flagging of Risk is done while there is still time to take corrective action.

What can suppliers do to improve OTIF?

For consumer goods manufacturers, reducing or eliminating OTIF penalties can be daunting given the complexity in identifying voids and inefficiencies. Gaining valuable insight into the supply chain is crucial to mitigating costly hiccups.

With the right solution, suppliers can proactively identify risks, optimize their delivery processes and move towards perfect order fulfillment. What CPG companies need is a solution to proactively address the challenge and boost OTIF scores - a solution that not only helps drive insights from historical trends but also predicts OTIF scores for the upcoming weeks, identifies which orders are most likely to fail and recommends timely and specific corrective action.

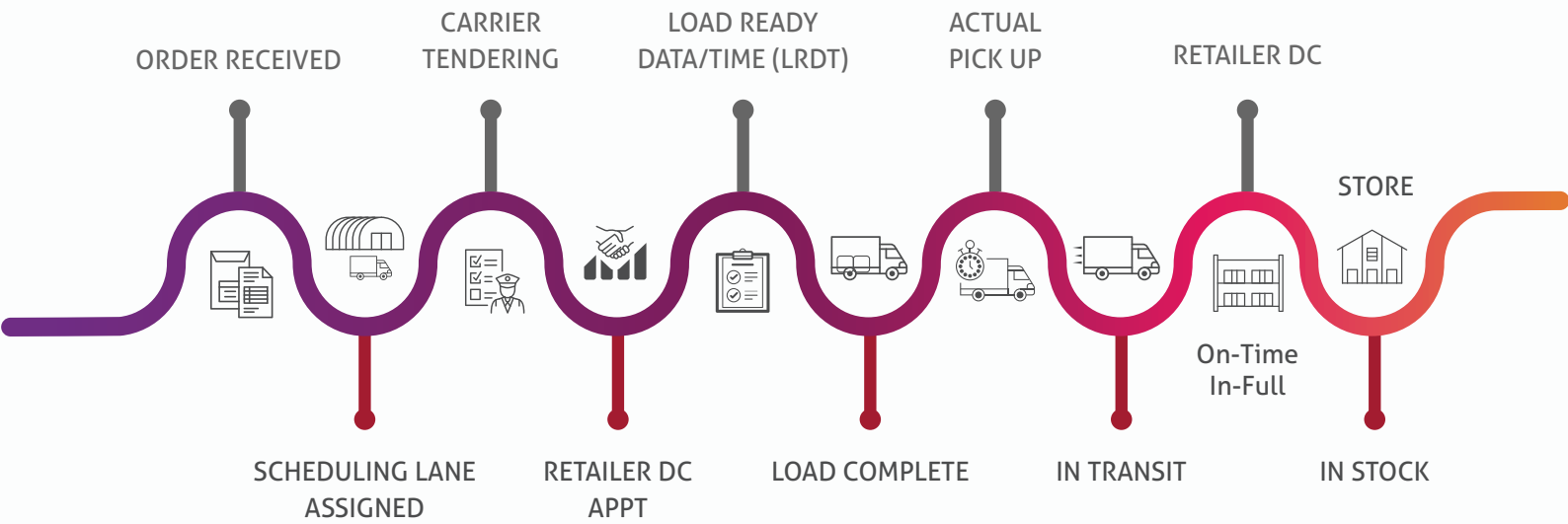
Mindtree's OTIF (MOTIF) is a cutting-edge predictive solution that helps customers with rapid identification and prioritization of potential risks and root causes. It proactively improves OTIF scores through supply chain optimization. The solution's machine learning algorithms iteratively query data through constraint-based modeling to find the core set of factors with the greatest predictive accuracy. They also help find new patterns in supply chain data on a daily basis, without the need for manual intervention.

In addition, MOTIF identifies key factors affecting compliance related to carrier, equipment availability, warehouse and lane traffic; or other reasons beyond the company's control such as transit delays. These can then be incorporated into the continuous improvement process.

At Mindtree, we help customers not only with a plug and play solution but also in identifying customer-specific opportunities to drive efficiencies and cost savings along the way. The MOTIF solution provides rapid ROI by helping retailers avoid steep penalties and enabling competitive advantage through continued cost savings.

Understanding where bottlenecks occur from the time an order is placed to the time it reaches the retailer distribution center is essential to improving OTIF scores. Our Machine Learning engine identifies patterns and potential inefficiencies each step in the logistics and the delivery process. We call it 'Track & Trace'.

Here's an example:



It is about **ending on a high note**

In today's hyper-competitive retail environment customer loyalties are at all time low. The competition for shelf space is not only from established national brands, but also from new and retailer labels. Out-of-stocks can be an absolute disaster for the business and the retailers absolutely cannot allow it to happen. Ensuring reliable, uninterrupted availability and experience to the customers, matters more than ever in today's market. At the same time for suppliers, failure to meet fulfilment can mean losing the customers to the competition for life.

Hence, OTIF is a great supply chain performance metric that can have a big impact on profitability and help organizations meet or exceed the customer expectation and enable competitive advantage through continued cost savings.

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