Defining The Perfect Order

White Paper

While delivering the 100% perfect order may be the Holy Grail for many distributors and manufacturers, it isn't necessarily the right mission for every organization.

kardexremstar

Introduction

For some organizations, getting the right part to the right place and at the right time is a mission-critical goal.

A manufacturer picking maintenance part orders for aircraft repair, for example, had better make sure the right parts are picked. The same goes for the medical device manufacturer or distributor tasked with sending the right knee implant to the operating room doctor. There's *literally* no room for error in either of these applications; these organizations will go to great lengths and spare no expense to achieve the perfect order – as they should. What about other organizations whose deliveries may not be quite as critical?

For example, does the large distribution center (DC) that sends a pallet of 10 red dresses and 20 yellow dresses instead of 10 yellow dresses and 20 red dresses to a retail story really suffer a great impact from this minor error? In a somewhat similar situation, does the manufacturer whose assembly line pauses for workers to either repick items or fix mispicks truly need 100 percent order accuracy or the "perfect order" every single time? Many warehouse and distribution professionals are asking themselves these types of questions as the focus on the perfect order seems to increase in importance, and as companies strive to achieve acceptable accuracy levels in an increasingly competitive, time-conscious business environment. They are finding the idea of the perfect order is a little different for everyone.

In this white paper we'll explore the concept of the perfect order, review factors that can help determine what the perfect order might be for your facility, share strategies companies are using to attain the perfect order, and provide solutions that allow companies to increase order accuracy *without* having to make the cost and time investment that's typically associated with reaching perfect order status.

Striving For Balance In A Competitive World

Achieving the balance between customer satisfaction and profitability has become somewhat elusive for organizations in today's business world.

Distributors are grappling with razor-thin margins and an increasingly picky consumer, and manufacturers are focused on improving efficiencies and process flow in a way that reduces repicks and mispicks that can disrupt their entire processes.

With this in mind, it's no secret that buzzwords like "perfect order" have come into focus over the last couple of years. Defined by the Warehouse Education and Research Council (WERC) as a shipment that's accurate, delivered on-time, in damage-free condition with the correct documentation and invoicing, [1]the perfect order has become somewhat of a Holy Grail for distribution operations.

[1] Vitasek, Kate, Perfecting the Perfect Order, WERC.

And even though every company has different thresholds for acceptable order accuracy (i.e., the medical device versus the dress example mentioned earlier), the overall assumption appears to be anything less than 100 percent is intolerable and an ongoing work in progress.

Credit AMR Research, which is now part of Gartner, with helping to fuel the perfect order fire by aligning the perfect order metric with a company financials. According to the research firm, perfect order is one of the top three measures in its hierarchy of supply chain metrics along with forecast accuracy and supply chain costs.

From its own research, the firm found that a 3 percent improvement in perfect order fulfillment translated into a 1 percent increase in profit margin, while a 10 percent increase meant an additional 50 cents in earnings per share.

And while striving for accuracy is a noble charge for any company, the payback associated with achieving the perfect order—particularly for firms whose order accuracy isn't mission-critical—remains to be seen.

Assessing The Financial Feasibility Of The Perfect Order

In some cases, companies work very hard to reach levels of customer service that are financial feasible for their own operations—all with an eye on cultivating higher market shares and long-term customer satisfaction.

But there are trade-offs to consider in these scenarios. And while few would argue the importance of order accuracy to customer satisfaction, is it the only factor. The company that takes the time to analyze its order accuracy requirements, and then leverages the right balance of good business strategies, technology, and automation to achieve these goals, will come out the winner.

A good starting point for achieving the desired balance is to consider the consequences of a mispick within your own operations. If a part is mispicked, what are the repercussions? Is it going to be a big deal and if so, how do you quantify this impact and mitigate it?

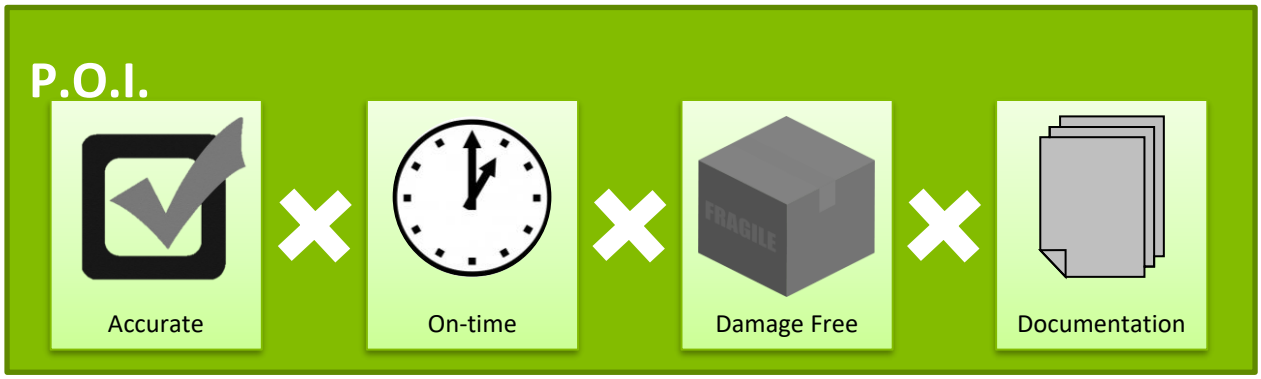
In defining perfect order measurement, *Supply Chain Metric* points out, as with most other supply chain metrics, there are many variations to this measurement. [2]

[2] Supply Chain Metric, Perfect Order Measurement, accessed January 15, 2015, www.supplychainmetric.com/perfect.htm

Say, for example, your warehouse picks and ships the wrong item. Once the customer receives the order and notices the error, he or she contacts the manufacturer and notifies them of the mistake. The manufacturer then enters a credit for the item not shipped and an invoice for the item shipped in its place. For almost all errors that occur, a corrective credit is issued. It is through an analysis of these credits that you derive your metric.

It's important to note a perfect order index is a compilation score that measures the result of each of the four major components of a perfect order, including: accurate shipment, on-time delivery, damage-free shipment and correct documentation.

According to the industry groups that developed this definition, the perfect order index is calculated by multiplying each component to one another. If a company has a 95 percent score for each of the four components, for example, then the perfect order index would be 81.4 percent.



For example:
Pick Accuracy: 99.2%
Delivered on Time: 96%
Shipped without Damage: 99%
Invoiced Correctly: 99.8%

Therefore, the Perfect Order Measure is 99.2% x 96% x 99% x 99.8% = 94.09%

Taking this perfect order index out onto the manufacturing floor or into the DC, and by applying it to individual operations, managers can begin to get a clearer picture of what it actually means to deliver a perfect order to a customer. From there, the organization will be better equipped to determine the lengths it will go to when trying to achieve perfect order status.

Technology: The Great Facilitator

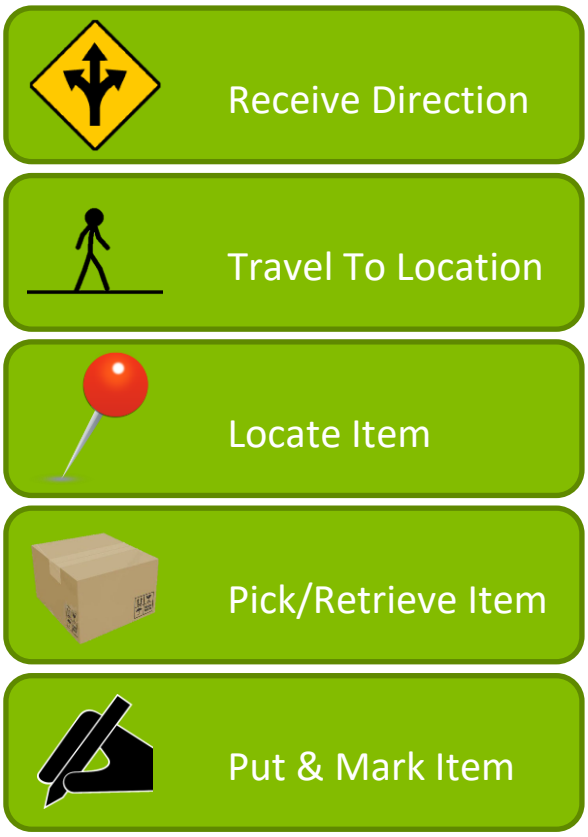
As companies define their perfect order and strive to reach their individual perfect order goals in order fulfillment, many of them are turning to automated technology to help streamline and automate their warehouse and DC operations, specifically the order picking portion of the order fulfillment process.

The picking portion brings five different areas of potential problems to the mix—receive direction; travel location; locating the item at the pick location; item pick; and item wait/mark—and the opportunity for human error grows exponentially.

Many companies are implementing low risk, easily cost justifiable automated storage and retrieval systems to increase the pick accuracy within the order fulfillment process. Automated storage and retrieval systems (ASRS), such as horizontal carousels, vertical carousels, and vertical lift modules (VLMs), optimize manual picking processes and help boost profits. From this level of automation, manufacturing or distribution facilities can glean improved inventory accessibility, better use of floor space, time savings and improved ergonomics; all resulting in higher pick accuracy without making an outrageous investment.

This "goods-to-person" method eliminates time spent walking from one pick location to another within a warehouse. Equipped with indicator lights that illuminate the item's location and pick quantity required, these automated solutions reduce the time spent searching for a specific stock-keeping unit (SKU) upon arrival at the pick face.

Also, because the solution interfaces with both inventory management and order management software, the picks are sequenced in a way that optimizes the machine's movement. All items can be picked in one rotation, or cycle, of the machine's storage bins or trays, further maximizing pick time.



Combined, these factors all boost pick accuracy and get distribution organizations that much closer to the perfect order they seek. Further, increasing pick accuracy even by less than one percent will not only contribute to a dramatic reduction in picking mistakes, but it will also result in tremendous cost savings. Concurrently, your own company's vision of the "perfect order" will come into clearer view.

Asking All The Right Questions

To achieve the highest degree of picking accuracy, integrating inventory management software with ASRS enables smart functionality such as inventory monitoring—yet another step in the direction of your ideal order accuracy metric.

In addition to keeping track of the contents stored within the machine, for example, the software also interfaces with a facility's warehouse management system (WMS) and enterprise resource planning (ERP) systems. This function allows managers to closely monitor stock levels in real time—reducing part shortages and potentially eliminate physical counts—for better inventory control.

In systems equipped with RF barcode scanners, for instance, the operator can be required to scan each picked item. The data captured by the scanner is then relayed to the inventory control software, which in turn verifies that the picked part is the same one required by the order.

This barcode recognition feature can also be used for system inventory replenishment: During restocking, the operator scans both the item and its destination to verify placement into the correct storage location.

Adding scanning to a storage and retrieval system ensures additional accuracy in order picking and SKU replenishment, significantly reducing mispicks. All of these “wins” can help push manufacturers and distributors further down the path of the perfect order while ensuring continued improvements in both profitability and productivity.

As they strive to balance high customer service levels with efficiency and profitability, the question all managers should be asking themselves in today’s perfect order-oriented fulfillment environment is: Do we *really* need to achieve the “perfect” order and, if so, then what does the word “perfect” actually translate into for our specific operations?

With the answers to these questions in hand, managers can assess the most tolerable levels of order accuracy while at the same time increasing both customer satisfaction and cost savings.

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About Kardex Remstar

Kardex Remstar, LLC, a company of the Kardex Group, is a leading provider of automated storage and retrieval systems for manufacturing, distribution, warehousing, offices and institutions. For information about the company’s dynamic storage solutions visit www.kardexremstar.com.