

# Fulfillment Accuracy Perception vs. Reality

■ By Wayne M. Teres

Distorted views of fulfillment accuracy are based on misinformation. Here's how to dig for the real numbers.

**N**ot long ago, I visited a catalog company where outright tension existed between the customer service department and the fulfillment center. Customer service reps were insisting that the fulfillment staff made errors on at least 15% of the orders each day.

The customer service group was basing its belief on calls from customers. The more calls they received, the more their criticism of the fulfillment center mounted. The result—"fulfillment bashing." More than one customer service rep was overheard saying, "The warehouse makes mistakes all the time."

The fulfillment manager couldn't believe his operation was that bad, but he wasn't absolutely certain. He began collecting information about errors caused by the fulfillment center during the previous three months. He found that fewer than 40 mistakes had occurred each month, which translated to approximately two errors per day. On an average of 500 orders per day, the accuracy rate was 99.8%—a long way from the 15% error perception of the customer service group.

These kinds of assumptions about fulfillment, based on misinformation, are common throughout catalog companies that do not have formal accuracy measurements in place.

## IS THERE A PROBLEM?

A survey of the fulfillment center will show whether the error rate is out of hand and may forestall criticism from other departments in the company. These few questions will provide answers that may surprise you:

- How often does the fulfillment center make an error?
- What are the errors?
- On a scale of 1 to 10, how would you rate the fulfillment center?

For the catalog company without an effective accuracy measurement system, there are two possible outcomes to the survey, neither of them pleasant. It may show that the fulfillment operation is being blamed for errors that it is not responsible for. Or, worse, that the standards of the fulfillment center do not meet the CSRs', management's, or the customers' expectations.

Customers want fast and accurate service, not just timely and adequate fulfillment. That means setting standards that call for shipping an order within 24 hours with an order accuracy of at least 99.5%.

To meet the increasingly difficult demands of all the audiences fulfillment serves—the end user or customer, the fulfillment center workers, and top management—fulfillment managers have one reasonable course of action: Redesign the current fulfillment measurement system and implement an order accuracy improvement program.



## MEASUREMENT SYSTEMS

Most companies use one of the following three accuracy measurement systems, none of which identifies problems or measures accuracy completely.

- Do nothing at all or respond to "fires" as reported.
- Perform outgoing shipment audits.
- Use customer information from customer service and returns.

Companies that do nothing at all or respond on an ad hoc basis to shipment errors aren't likely to be around long. The competition is too stiff and customers are too savvy.

Companies that perform shipment audits and those that use customer service and returns information to measure accuracy may be misguided. Often, certain problem areas are overlooked or even disregarded when final calculations are made.

## OUTGOING SHIPMENT AUDITS

Some companies perform shipment audits before the orders are shipped to

determine fulfillment order accuracy. A shipment audit involves selecting a small sample (10% is common) of outgoing shipments and reviewing them. Each order is opened and the contents are checked for the following:

- Are the items in the carton the items the customer ordered?
- Are quantities correct?
- Is quality acceptable?
- Are the items packed so that no damage will occur in transit?

Fulfillment accuracy in this case is determined by subtracting the shipments containing errors from total shipments audited and dividing that number by total shipments audited. As an example, if 100 shipments were audited, and one error was found, fulfillment accuracy would be 99%.

## CUSTOMER FEEDBACK

Companies that measure accuracy by counting customer complaints of fulfillment errors divide total shipments by the number of shipments reported to have an error. The problem with this

method is obvious—many unsatisfied customers do not report errors; they just don't order again.

Whether the catalog companies conduct outgoing shipment audits or wait for customer feedback, they generally use these preventable errors to calculate accuracy:

- Wrong item picked
- Missing item
- Wrong amount sent
- Correct size or color.

This list, however, describes only a portion of the errors for which the fulfillment center is accountable. The following problems also belong on the list, particularly since customers clearly see them as errors:

- Defective items
- Items damaged by poor packing
- Items not picked because of inventory inaccuracies.

The final category includes items that the customer was told were in stock and would be shipped. They could not be found at time of picking, however, resulting in a forced backorder or a

## The system can't stop at measuring errors. Collect the information, distribute it, then undertake a proactive strategy to increase accuracy.

manual backorder. To some, including this category in a list of preventable errors will seem surprising. Nonetheless, to customers who fail to receive items promised at time of order, this "surprise" is clearly a mistake.

### AN ACCURATE APPRAISAL

The better way to determine fulfillment accuracy is to measure it using all three categories: inventory fulfillment accuracy, physical fulfillment accuracy, and total shipments shipped without error. These categories include all the preventable errors cited above—wrong item picked, missing item, too many sent, incorrect size or color, defective items, items damaged due to poor packing, and items not picked due to physical inventory inaccuracies.

This method also provides the facts necessary to reduce errors and to measure the effectiveness of actions taken. Because the data has to be obtained from different sources, one person should be assigned to collecting and assembling the information using the following procedures.

Inventory fulfillment accuracy measures the ability of the fulfillment operation to find the item that the computer shows to be in stock. This measurement can be calculated by dividing total shipments by the number of shipments that went out without "unfound" items.

For example, if 1,000 shipments went out, and ten of them went out incomplete because items couldn't be found, inventory fulfillment accuracy would be 99%. The number of problem

shipments can be obtained from the person responsible for problem shipment resolution or from customer service.

Physical fulfillment accuracy measures the physical fulfillment process by random sampling and inspection of packages prior to shipment. It can be calculated by dividing the number of shipments without errors by the total shipments sampled. For example, if 100 shipments were sampled and 99 were error-free, fulfillment accuracy would be 99%. This measurement provides vital information, such as identifying the person who made the error and the nature of the error, and it allows action to reduce the errors.

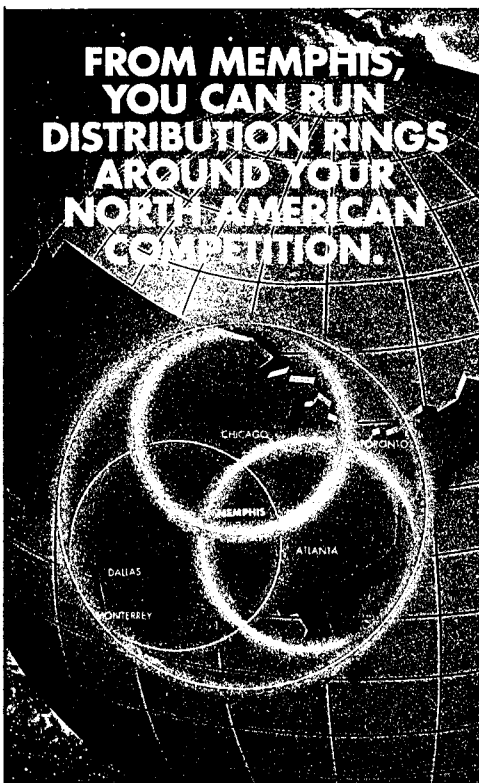
Total shipments shipped without errors measures the entire fulfillment process—picking, packing, and shipping—for all fulfillment-preventable errors. Work with Customer Service to develop a procedure to collect fulfillment-preventable errors from the customers. A good start is the "returns by reason" report. Be careful to collect all occurrences, such as damaged items not returned by customers.

To calculate shipments shipped without errors, collect all order errors for the month and add them to total number of inventory problem orders. Subtract this number from the total shipments shipped.

To calculate accuracy percentage, divide the shipments with errors by total shipments shipped. For example, during one month, out of 20,000 shipments, 200 shipments went out with preventable errors and 100 shipments had inventory problems, or  $20,000 - (200+100) = 19,700/20,000$  or 98.5%.

The information gathered from this measurement system will result in a more accurate reflection of your fulfillment excellence. It will also mirror the perceptions of your customers and the customer service department.

However you implement a re-designed measurement system, the sys-



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tem itself must be simple and easy to understand, timely, complete, and visible to all. Most important, it must be cost-effective to collect and report the data upon which the system is built.

It is best to collect accuracy data weekly and report it on a graph. This visual representation can then be displayed in the fulfillment center and published in the company newsletter or flash report. Each error category should be explained so that everyone knows how errors are defined, why they must be corrected, and how important it is to prevent them. Employees also need to know how accountability for errors is defined and what the consequences are when something goes wrong.

Many catalog company workers—not just fulfillment center staff—do not understand the cost of an error. The actions required to remedy an error and the price attached to those actions illustrates this point (see table above).

## The cost of fulfillment errors

Customer service time and phone charges	<b>\$4.15</b>
UPS Call Tag to pick up item	<b>7.00</b>
Return processing of the item	<b>.85</b>
Pick/Pack/Ship item (inc. outgoing freight)	<b>7.00</b>
Unreturned items (10% of items at \$20/item)	<b>2.00</b>
<b>Total Cost</b>	<b>\$21.00</b>

(Note: This calculation does not include the cost of losing the customer. Also, costs can be much higher for a business catalog, which must issue credit invoices and may have a higher value per item.)

### IMPLEMENTING AN IMPROVEMENT PROGRAM

If identifying accuracy were the goal, the program would have fulfilled its mission with the weekly report. But the information must be used to reduce errors. That means implementing an improvement program, a complex subject.

Simply stated here, it is essential to understand your opponent—the drivers of the numbers. They are the key factors that can change the numbers. To identify the drivers, examine the errors in each category—not total number of errors—and, undertake proactive strate-

gies to reduce them.

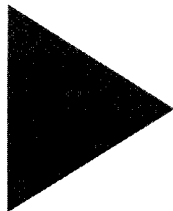
As an example, let's look briefly at the three categories that are usually omitted from a fulfillment accuracy measuring system—defective item sent, damaged goods due to poor packaging, and unpicked items due to inventory discrepancies.

Defective items can be caught before they are shipped at various stages in the fulfillment process, but usually at receiving quality assurance.

Search for answers to these questions about defective products:

- Is there a pattern? From one vendor? By item?
- Is there an inbound inspection program?
- If so, how successful is it?
- If not, should you begin one?

Merchandise damaged because of poor packaging can be prevented. Working with packers, carton suppliers, and transportation companies, alternative packing methods and materials can



## Don't blow your own horn unless you can meet your goals. Heightened, but frustrated, expectations can well be worse than simple inaccuracies.

be found that will reduce this error.

Problem orders—or orders not picked due to inventory discrepancy—are most important and most complicated. These orders are sent incomplete because an item cannot be found that the system shows to be available. Some companies spend countless hours looking for missing items—as much as 20% of the picking time—trying to track down missing items.

The main reason many companies refuse to take the problem of inventory discrepancies into account is that it is likely to bring the fulfillment accuracy percentage down. It is not uncommon, for example, for 2% of shipments to leave the fulfillment center with this problem. Instead of 99.5% shipment accuracy, that

figure now dwindles to 97.5%.

More accurate inventory recording is required to fix this problem. One way to improve the measurement of quantity of items stored in each location is to perform cycle counts. Cycle counts are periodic physical counts of merchandise at each location that are used to reconcile the amount actually on hand with the amount that the computer shows to be in inventory.

### ACCURACY—A WINNING STRATEGY

Regardless of the level of accuracy the fulfillment center actually achieves, it is important to market accuracy figures throughout the company—your internal customers. Otherwise, other departments may continue to have—and communicate—their own perceptions of fulfillment accuracy.

After you have acted on areas that need improvement and have achieved a high level of accuracy, the next step is to market that achievement to both internal and external customers. Promoting your accuracy not only provides a competitive edge; it is a source of pride to fulfillment center workers and to the rest of the company.

A final word of warning: Don't blow your horn unless you can meet your goals. Heightened, but frustrated, expectations can well be worse than simple inaccuracies. ■

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