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# Maintaining Stock in Branch Locations

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***EIM***

Effective Inventory Management, Inc.

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***This report is the fifth in a series of white papers designed to help forward-thinking distributors increase efficiency, customer service, and profitability with smart inventory management strategies based on tried and proven methods and best practices.***

**Distributors who maintain all of their operations in one location have many advantages:**

- All employees work in the same building. They can easily communicate and avoid a lot of miscommunication and many misunderstandings.
- Upper-level management is on-site and can directly supervise all departments and processes.
- One common inventory of stock products can serve the needs of all customers.

**Considering these advantages, why would a distributor open and maintain multiple locations?**

- Customers may need material in a shorter period of time than it can be delivered from a central warehouse.
- The cost of continually shipping material to customers from a central location is far greater than maintaining a stock of products in a local branch.
- A local stocking location shows a commitment on the part of the distributor to serve a specific local market.

Branch locations are expensive to operate. And to be successful the service they provide must be equal to that provided by their organization's home office. In this document we will discuss policies and procedures for successfully maintaining stock inventory in branch locations.

## **What Products Should Be Maintained in Each Branch?**

The purpose of a branch location is to serve the needs of a local market. Its inventory must reflect those needs. There are distributors that stock exactly the same products in every warehouse. This "every product in every branch" policy might seem reasonable but is only effective if all customers have identical needs and preferences.

When a distributor stocks a product they make a commitment to have that item available, in reasonable quantities, for immediate delivery. But each customer has a unique set of inventory needs. A product that sells well in one area may have limited or even no usage in another region. Therefore, an approved list of stock products should be independently maintained for each branch. Consider these questions in developing an approved stock list:

- What products must be available for immediate delivery?
- What products can be delivered overnight or in the time necessary to obtain the item from a central warehouse or vendor?
- Is the cost of transferring an item from a central warehouse, as needed, greater than the cost of carrying the item in the branch location?

In developing the stock list for a branch, analyze the number of times each product has been requested or required by current or potential customers in the past 12 months, regardless of quantity. If a product appears on a minimum number of orders it should be included on the approved stock list for that location. Though the minimum number of "hits" required for an item to be stocked will vary by distributor, many companies feel that at least four disbursements each year are needed for a product to be maintained in the stock inventory of a branch. Add to the stock list any "emergency" repair parts that should be kept on hand just in case of a crisis at a customer site. Specific replenishment parameters (for example, minimum and maximum stock levels) are discussed in the *Effective Replenishment Parameters* white paper in this series.

## How Should Each Stocked Product Be Replenished?

The inventory of each stocked item in a branch can be replenished with either a transfer from a central warehouse/distribution center or shipment direct from the vendor. There are advantages to each replenishment method.

### **Transfer from a central warehouse/distribution center:**

- No vendor minimum or target total order requirement.
- Products do not have to be ordered in a multiple of the vendor package quantity.
- No vendor invoice that has to be checked, approved, and paid.

### **Direct vendor replenishment:**

- Material is not received twice (once in the central warehouse and a second time in the branch location).
- The central warehouse does not have to spend time processing transfers and can concentrate on filling sales orders for its customers.
- It is not necessary to maintain a transportation network between branches in order to deliver transfer orders in a timely manner.

Many distributors find that a combination of the two methods results in effective replenishment of stock in branch locations. Products with a moderate to high volume of usage are replenished directly from the vendor while the stock of slow-moving products is replenished with branch transfers from a central warehouse. Here are the “rules” of the branch replenishment plan maintained by one distributor:

- 1.** The projected annual usage of each item is divided by the quantity of that item in a vendor package to determine how many packages of the item could be sold in the branch in a year. For example, the #A100 widget must be purchased in a box of 25 pieces and total usage of the product was 100 pieces during the past 12 months. The branch’s projected annual usage is four boxes. This is also known as the annual vendor package usage.
- 2.** Compare the annual vendor package usage determined in step #1 to the target inventory turnover of the branch. If the annual vendor package usage is greater than or equal to half the target inventory turnover, place the item in group “A.” If the annual vendor package usage is less than half the annual target inventory turnover, place the item in group “B.” If the target turnover of the branch is less than or equal to eight turns, the #A100 widget belongs in group A. If the target turnover of the branch is more than eight turns, the item will be assigned to group B. Inventory turnover is discussed in detail in the *Effective Inventory Analysis* white paper in this series.
- 3.** Group B items are “slow moving” and will always be replenished with a branch transfer.
- 4.** Fast-moving group A items will be replenished directly from the vendor if a target order can be issued at least once a month. A target order meets the requirements to get the terms or discounts that allow you to competitively sell the vendor’s products. If the target requirement cannot be met at least once a month, group A items are replenished along with group B items with transfers from the central warehouse.

Replenishing branches' slow-moving inventory directly from vendors can dramatically increase a distributor's cost of carrying inventory (also known as the "K cost"). The K cost includes all of the expenses you incur in maintaining inventory in your warehouse. Suppose the distributor has an annual carrying cost of 18 percent (you can obtain a questionnaire developed by EIM for calculating your inventory carrying cost from your Microsoft dealer). This means that it costs 18 cents to maintain a dollar's worth of inventory in a branch for an entire year. Here is the projected annual usage of the #A100 widget (cost = \$5 per piece or \$125/box) in each of five company locations:

| Location           | Annual Usage   | Monthly Usage   |
|--------------------|----------------|-----------------|
| Central Warehouse  | 125 pc.        | 10.42 pc.       |
| Branch #1          | 15 pc.         | 1.25 pc.        |
| Branch #2          | 20 pc.         | 1.67 pc.        |
| Branch #3          | 25 pc.         | 2.08 pc.        |
| Branch #4          | 15 pc.         | 1.25 pc.        |
| <b>Total Usage</b> | <b>200 pc.</b> | <b>16.67 pc</b> |

Here is a summary of the distributor's cost of carrying inventory if each branch bought the #A100 widget in boxes of 25 pieces directly from the vendor:

| Location               | Monthly Usage | Months of Supply/Box | Carrying Cost per Box |
|------------------------|---------------|----------------------|-----------------------|
| Central Warehouse      | 10.42 pc.     | 2.4                  | \$2.25                |
| Branch #1              | 1.25 pc.      | 20.0                 | \$18.75               |
| Branch #2              | 1.67 pc.      | 15.0                 | \$14.06               |
| Branch #3              | 2.08 pc.      | 12.0                 | \$11.25               |
| Branch #4              | 1.25 pc.      | 20.0                 | \$18.75               |
| <b>Total K Cost \$</b> |               |                      | <b>\$65.06</b>        |

The carrying cost per box is calculated by multiplying:

$$\text{Months of supply/box} \times \text{Carrying cost/month} \times \text{Average inventory \$ box}$$

$$\text{Months of supply/box} = 25 \text{ pieces per box} \div \text{Monthly usage}$$

$$\text{Carrying cost per month} = \text{Annual carrying cost of 18 percent} \div 12 \text{ months} = 1.5 \text{ percent per month}$$

**Average inventory \$ box** = Value of inventory in a box (\$125) divided by two. During the time it takes to sell an entire box of the #A100 widget, half the time there will be more than \$62.50 in inventory and half the time there will be less than \$62.50 in inventory.

Notice that it will take branches 1, 2, and 4 well more than a year to use a full box of the product. One of the biggest advantages of transfer replenishment is that it is not necessary to send full boxes of a product between branches. All of the company's locations can share each box of 25 widgets. Notice how the carrying cost of the product dramatically decreases if the central warehouse buys boxes of the #A100 widget from the vendor and then resupplies the other branches, as needed, with branch transfers:

| Total Monthly Usage | Months Supply/Box | Carrying Cost/Box |
|---------------------|-------------------|-------------------|
| 16.67               | 1.5               | \$1.41            |

Notice the drastically lower carrying cost per box (\$65.06 versus \$1.41) if all locations share boxes of the #A100 widget rather than ordering boxes on their own. Sure, there is the added expenditure of filling and shipping transfer orders from branch to branch, but this cost is probably far less than the cost of carrying the additional inventory. Consider the potential savings for the typical distributor who stocks thousands of slow-moving products.

## A Branch Inventory of Safety Stock?

One of our clients competes with a national "catalog" distributor that guarantees overnight delivery of thousand of products. To compete with this formidable rival they must also guarantee overnight delivery of stock items from their central warehouse. The competitive pricing dictated by the larger competitor does provide our customer with the funds necessary to maintain inventory of stock products at local branches. But they've established a competitive edge in their market by maintaining small quantities of select critical inventory items at sales offices throughout their market area. If one of the distributor's regular customers has an emergency and cannot wait till the following day to receive a part, they can pick up the needed item from the emergency "safety stock" maintained at the sales offices. It is important to emphasize that only our client's regular customers can draw from the safety stock and then only in emergencies. Because their customers know the potential cost of shutting down a vital process or their entire company, they remain loyal to our client to retain access to this insurance inventory of emergency-repair parts.

Distributors rely on branch locations to maintain a high level of customer service. But providing this service is very expensive. It is imperative that distributors carefully analyze the products that should be maintained in each branch location as well as the replenishment source for each item.

## About the Author

### Jon Schreibfeder

Jon Schreibfeder is president of Effective Inventory Management, Inc., a firm dedicated to helping manufacturers, distributors, and large retailers get the most out of their investment in stock inventory. For over 20 years, Jon has helped over two thousand firms improve their productivity and profitability through better inventory management. Jon has designed several inventory management computer systems and has also served as a distribution industry “troubleshooter” for two major computer companies. He is the author of numerous articles and a series of books on effective inventory management, including the recently published *Achieving Effective Inventory Management (5th edition)* and the *National Association of Wholesale Distributors' Guess Right – Best Practices in Demand Forecasting for Distributors*.

A featured speaker at seminars and conventions throughout North America, Latin America, Europe, Asia, and the Pacific Rim, Jon has been awarded the title “Subject Matter Expert” in inventory management by the American Productivity and Quality Center. He is an advisor and guest lecturer in the Industrial Distribution Program at Purdue University.

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