

## Inventory Management Technology Strategies for Distribution

### Key Facts

Many distribution industry enterprises are seeking improved ways to manage their inventory. Traditional inventory management practices have been rendered obsolete by increasing global supply chains, more dynamic product life cycles, and multi-channel distribution. This Sector Insight provides key research findings for distribution companies to consider while making inventory management technology decisions.

- ✓ The majority of companies are looking at inventory as a cost-related item, but 25% of companies are thinking of inventory as a way of gaining market share through superior service and product availability
- ✓ 50% of companies are still not managing at a network level but instead at a location level
- ✓ Only 6% of distribution companies have created a single owner for inventory across the supply chain.
- ✓ 40% of distribution companies are looking at their network design only once every two to five years

Inventory has been and continues to be the lifeblood of the distribution marketplace. While many companies are slow to adopt new strategies and technology, a growing number of distributors are able to leverage inventory practices to improve key metrics like customer retention, gross margins and inventory turns.

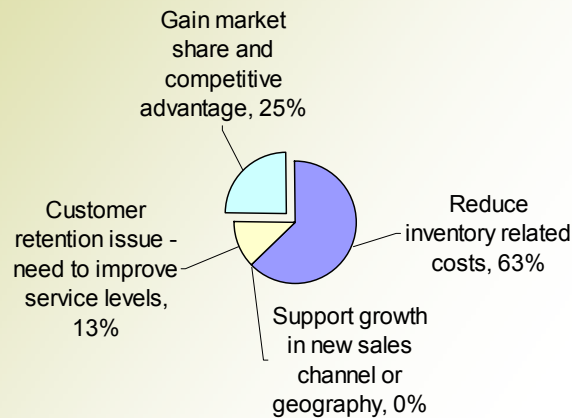
### Inventory Management Trends in Distribution

Aberdeen conducted a research survey on inventory management technology adoption and ROI in January and February 2007 across 55 distribution companies. This study confirmed that inventory management processes and technologies are being actively re-evaluated by companies today. 69% of respondents indicated they have made or been asked to provide recommendations in the past six months to management on how to improve their inventory management technology. An overwhelming 88% of companies say they have made or been asked to make inventory process recommendations within the past six months.

The majority of companies are looking at inventory as a cost-related item, but 25% of companies are perceiving inventory as a way of gaining market share through superior service and product availability (Figure 1).

The truly visionary companies are leveraging their inventory as a competitive weapon and have moved to network-based inventory management versus doing it at a facility or company level. They use inventory to optimally position supply when and where it is most needed and most profitable. By segmenting their customer channels and products, these companies are able to attain a significantly higher return on assets than their competitors because their supply is effectively positioned.

**Figure 1. Primary Goal for Improving Inventory Management Among Distributors**

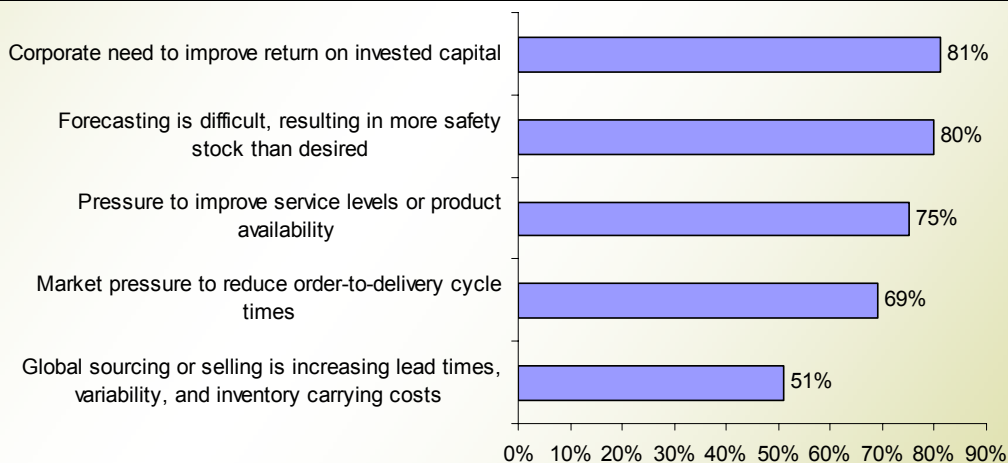


Source: AberdeenGroup, February 2007

## Distribution Industry Improvement Opportunities

As Figure 2 shows, the top reasons that distribution companies are rethinking their inventory practices are to improve return on invested capital and ease challenges in demand forecasting.

**Figure 2. Top Pressures for Improving Inventory Processes**

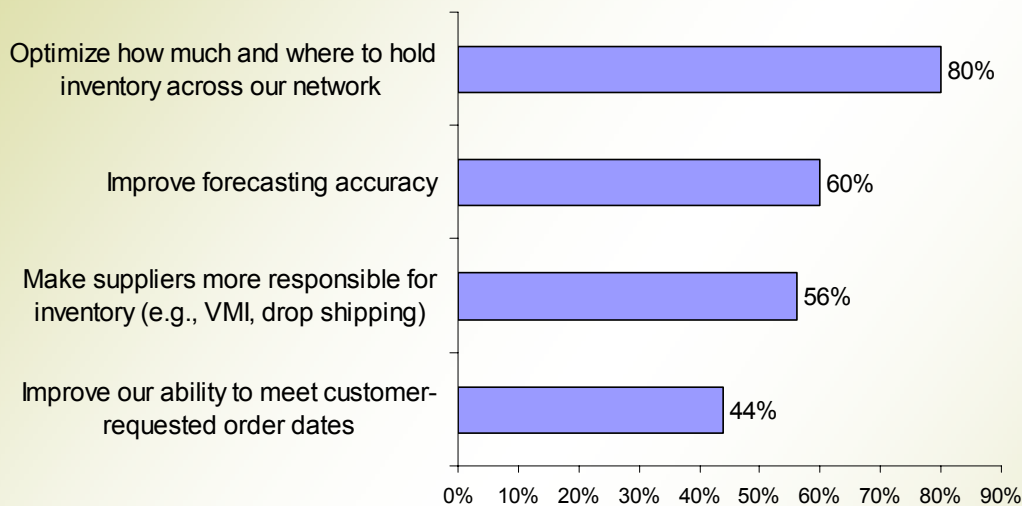


Source: AberdeenGroup, February 2007

A majority of distribution-intensive companies are also seeking to revamp inventory practices to improve customer service levels and collapse order to delivery times. An emerging pressure for improving inventory processes is the complexity caused by increased global sourcing and selling.

Figure 3 shows the strategic actions that distribution companies are taking to improve their inventory management practices. Companies are prioritizing their approach with the intention to optimize how much and where to hold inventory across the network. Six out of 10 companies are also focusing on improving forecasting accuracy in order to reduce safety stock requirements.

**Figure 3. Strategic Inventory Actions Being Taken by Distribution Companies**



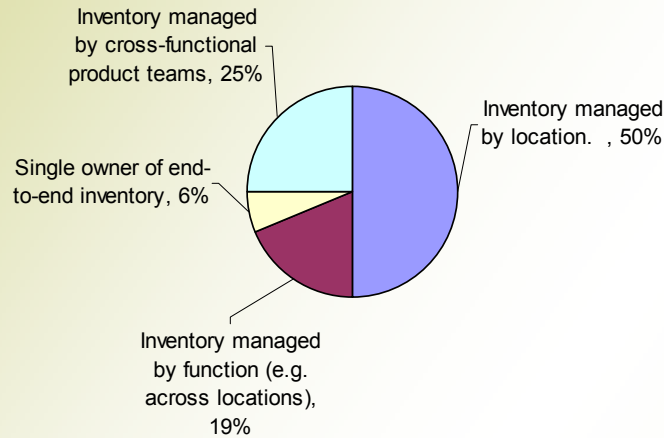
Source: [AberdeenGroup](#), February 2007

### Inventory Management Organization Strategy

An important result from the survey is that 50% of companies are still not managing inventory at a network level, but instead determine stocking quantities and policies at a location level (Figure 4).

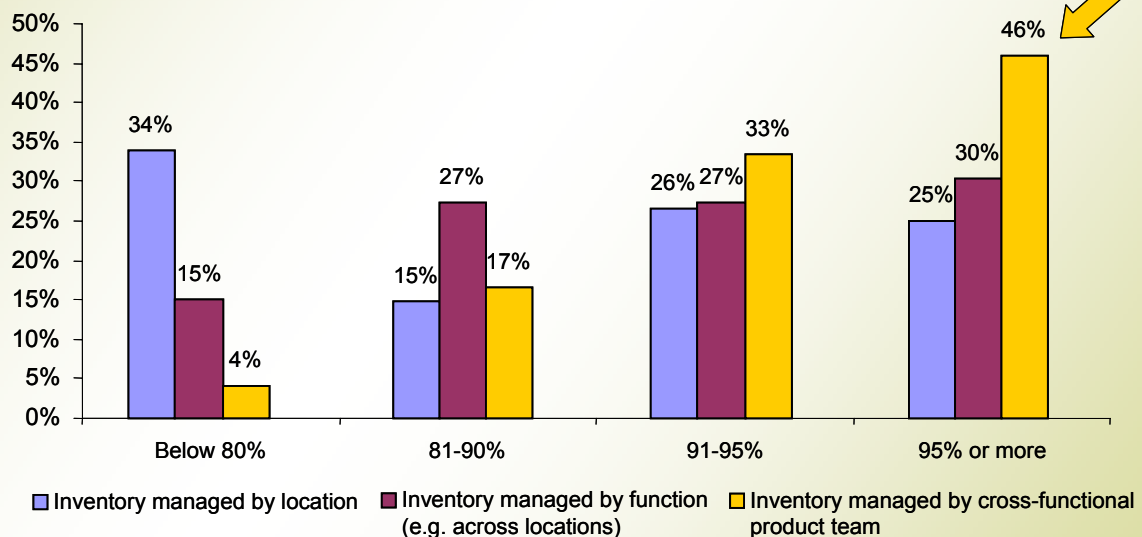
Customer service levels are higher for those companies that manage inventory through cross-functional teams or have a single owner of end-to-end inventory (Figure 5 – shows the customer service levels versus % of respondents – based on a 2006 cross-industry benchmark by Aberdeen). Companies that have cross-functional teams are able to collectively identify innovative ways to reduce customer lead times and inventory carrying costs rather than focusing on how to slash inventory within their own functions, which can create undesirable side effects for other parts of the organization. Renewed interest in another cross-functional process – sales and operations planning – is also helping to drive increased process innovations in the inventory management area.

**Figure 4. How Distribution Companies Manage Their Inventory**



Source: AberdeenGroup, February 2007

**Figure 5. How Inventory Organizational Strategy Impacts Customer Service Levels**



**Customer Service Levels are higher for those companies that manage inventory through cross-functional teams or have single owner of end-to-end inventory**

Source: AberdeenGroup, February 2007

## Other Key Process Findings

### *Frequency of Network Design Evaluation*

Best In Class companies are increasingly using network design beyond identifying where to build facilities and warehouses. They have started thinking about where and how much inventory to place along with how to redesign distribution networks to mitigate transportation time, cost, and capacity constraints.

Nevertheless, given globalization and dynamic customer requirements, it is concerning that 40% of distribution companies are looking at their network design only once every two to five years. One reason is the lack of adoption or slow movement toward tools in this area.

### *What Are Distribution Companies Doing Within Network Design?*

Distribution companies are focusing on the following priorities associated with network design:

- Rethinking inventory placement (67% of distribution companies)
- Evaluating the impact of network changes on customer service levels (60% of distribution companies)
- Undertaking warehouse consolidation projects (60% of distribution companies)

### *Inventory Policy Revision/Review Frequencies*

Another drain on financial performance is that companies' inventory strategies rarely keep up to date with real-life conditions. Nearly 81% of companies say they update their inventory strategies on a quarterly or less frequent basis. Such infrequency of analysis is not sufficient given today's global sourcing strategies that create more supply and lead time variability. **Aberdeen benchmark results show that above-average inventory performers are more than 2.5 times as likely as other companies to update their inventory strategies and policies multiple times a year.**

## The Critical Role of Technology in Inventory Management

Improving inventory practices calls for a high degree of collaboration and visibility across the supply chain, as well as more sophisticated optimization. Companies that do not use technology to enable their supply chain inventory initiatives will not achieve the same level of performance. Spreadsheet methods are not sufficient in today's demanding environment because they are incapable of evaluating all of the trade-offs.

- *Companies using MRP/DRP system (which meet service or cost objectives at one level of supply chain and are then propagated to the other levels) were two times more likely to have customer service levels above industry average than those companies planning to use inventory policies with general rules (e.g., hold eight weeks of supply for all products).*
- *Companies using a visibility or supply chain event management system were three times as likely to have faster order to delivery times as those companies that had no plans to adopt such a solution*

**Key supply chain inventory technologies are used by just 10% to 30% of companies today.** Future adoption plans, if executed, would raise that to 50% or more of companies.



A large number of companies are using either spreadsheets or homegrown custom applications for inventory management. For instance, 47% of distribution companies report they are utilizing spreadsheets for inventory functions. These fragmented applications are not capable of effectively modeling and managing inventory across a network of locations.

Table 1 shows the technology adoption intentions within distribution industries. The top three areas where companies have existing or budgeted technology solutions are:

- a) Supply chain visibility
- b) Forecasting system that supports some form of customer-level forecasting
- c) Distributed order management system.

The top three areas where distribution companies are intending to invest in terms of new technology areas are:

- a) Inventory optimization
- b) Forecasting system that supports some form of customer-level forecasting
- c) B2B collaboration platform

**Table 1. Technology Adoption Intentions of Distribution Companies**

|                                                              | Have Today or Budgeted | Future Plans | No Plans to Adopt |
|--------------------------------------------------------------|------------------------|--------------|-------------------|
| B2B collaboration platform                                   | 21%                    | 43%          | 36%               |
| Tool that optimizes inventory policies at SKU location level | 27%                    | 47%          | 27%               |
| Distributed order management system                          | 31%                    | 38%          | 31%               |
| Forecasting system that supports customer-level forecasting  | 33%                    | 47%          | 20%               |
| Supply chain visibility system                               | 40%                    | 40%          | 20%               |

Source: [AberdeenGroup](#), February 2007

## Recommendations for Action

- 1) **Appoint a single end-to-end owner of inventory**  
Only 6% of distribution companies have created a single owner for inventory across the supply chain. Without this level of accountability, local inventory reduction and service level programs will thrive. Locally optimized programs, despite their good intentions, almost always lead to higher working capital costs and service level challenges
- 2) **Actively manage in-transit inventory through supply chain visibility**  
Distribution enterprises with long transit times should investigate the different ways to use in-transit inventory as a virtual inventory bin to lower safety stock levels, reduce total delivered costs, and maximize revenue opportunities.
- 3) **Start doing customer level forecasting for the key customers**  
Evolve your current forecasting systems to enable customer-level forecasts that increase the ability to match customer service levels and reduce overall inventories. This may involve extensive process changes in some cases, but may be more of an incremental shift in other cases.
- 4) **Move toward supplier inventory collaboration**  
Look to carry out supplier inventory collaboration, which includes sharing more inventory and forecast data with key suppliers. Sharing this and other data will help shipments move more quickly and easily, and improve performance.
- 5) **Leverage existing investments in APS/ERP systems to make sure that inventory management capabilities are being utilized within the solution.** For many, inventory management is still being done as a general rule-based system in spite of more functional capabilities available in a company's ERP/APS system.

## Related Research

- [\*Supply Chain Inventory Strategies Benchmark Report; December 2004\*](#)
- [\*Technology Strategies for Inventory Management, September 2006\*](#)
- [\*Technology Strategies for Integrated Business Planning, July 2006\*](#)
- [\*Inventory Management Technology Strategies for Mid Size Companies, Nov 2006\*](#)

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