

Finished Goods Inventory Management

Presenting Growth & Adaptation Through Metrics

Supply Chain Consortium
Benchmarking & Best Practices

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Summary

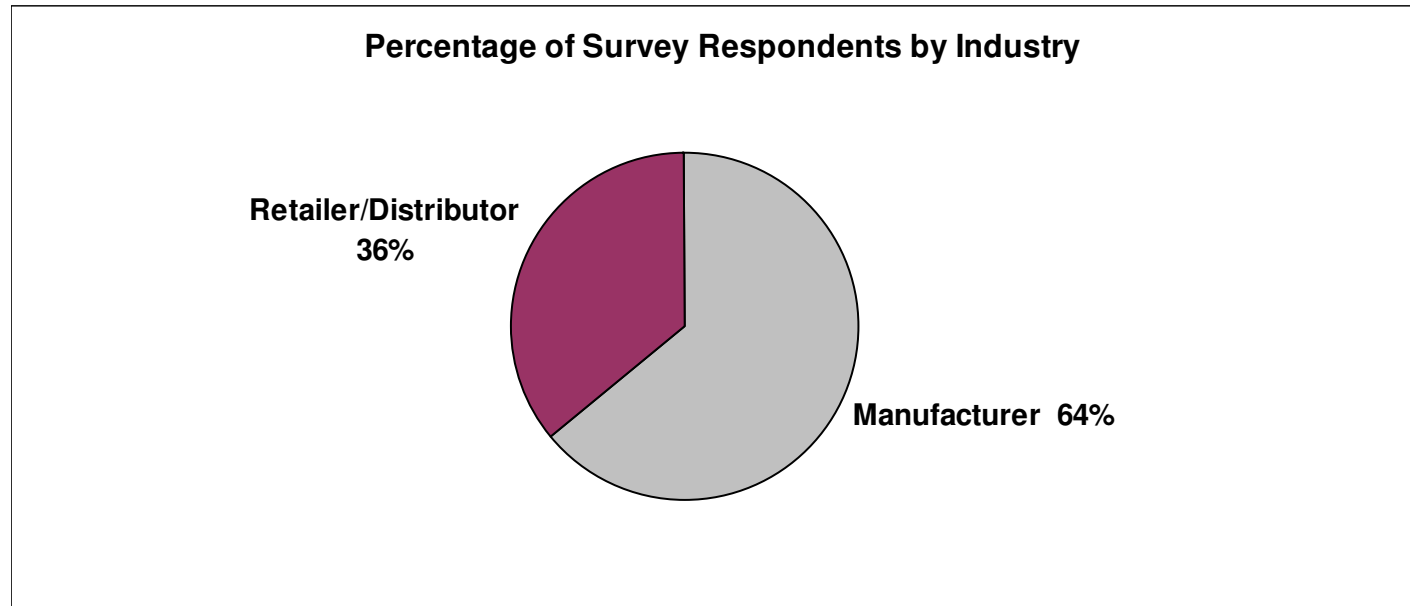
The 2012 *Finished Goods Inventory Management Survey* received a large number of responses. With the lingering financial conditions that exist today, this topic is important to all industries and market segments. The goals of this survey were to understand:

- How companies organize and manage finished goods inventory;
- Who has responsibility for finished goods inventory;
- How finished goods inventory targets are set and by whom;
- What performance metrics are used;
- How finished goods inventory and customer service were impacted in 2011;
- What potential improvements are being considered; and
- Details about specific practices used for finished goods inventory management.

Data is presented throughout the report so that readers may draw their own conclusions. At the end, the closing thoughts outline the most significant findings from the survey.

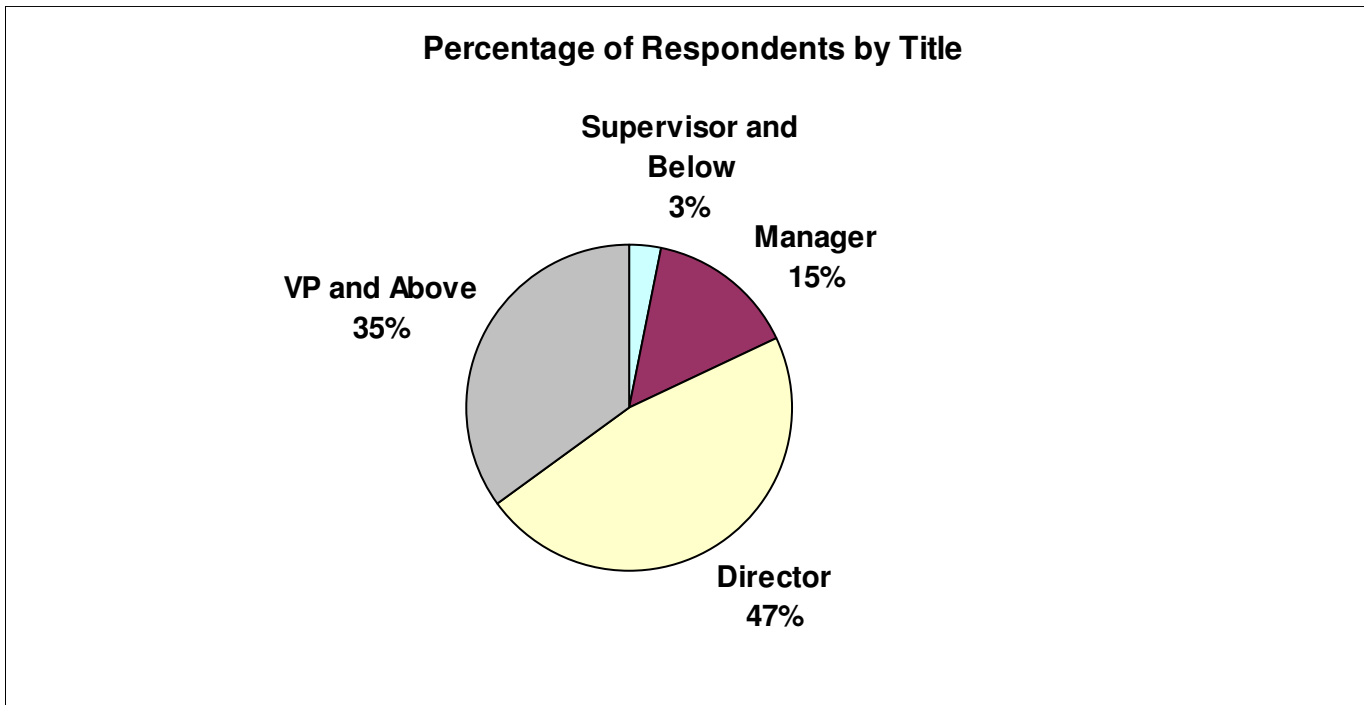
The Tompkins Supply Chain Consortium also thanks everyone who took the time to complete the survey.

Survey Participant Demographics



- Nearly two-thirds of respondents are from manufacturing companies, while 36% are from retail and distributor organizations.
- However, roughly the same number of manufacturing and retail organizations were asked to complete the survey.

Survey Participant Demographics



- There is a good distribution of respondents across supply chain titles, representing all organizational levels of the supply chain.

Responsibility

Organizational Responsibility			
	Corporate-Wide	Division-Wide	Geographically
Planning Inventory Needs	45%	34%	21%
Determining Inventory Levels	42%	41%	17%
Distributing Inventory	35%	34%	31%
Controlling Inventory	48%	35%	17%

- All inventory functions are more often done at the corporate level than at the division level or geographically.
- These results are similar to the 2010 report. However, in 2010 the majority of respondents selected controlling inventory as a division-wide function.

Responsibility

Geographical Responsibility			
	Domestic Only	International Only	Domestic and International
Planning Inventory Needs	31%	0%	69%
Determining Inventory Levels	35%	0%	66%
Distributing Inventory	38%	0%	62%
Controlling Inventory	31%	0%	69%

- In a majority of companies that have an international component for finished goods inventory, there is one organization that handles both domestic and international finished goods inventory.
- This is the same conclusion reached with the 2010 survey responses.

Setting Finished Goods Inventory Targets

Setting Inventory Targets		
	100%	Shared
Procurement / Purchasing	2.9%	26.5%
Merchandising	2.9%	14.7%
Manufacturing	2.9%	26.5%
Distribution Operations	0%	26.5%
Customer Service	0%	23.5%
Inventory Management	20.6%	41.2%
Forecasting	5.9%	32.4%
Marketing	0%	23.5%
Retail Operations	2.9%	8.8%
Sales	2.9%	38.2%
Finance / Accounting / Controller	8.8%	29.4%
Executives	11.8%	38.2%
Logistics and Transportation	0%	17.7%

- The inventory management organization in many companies (62%) is responsible for setting finished goods inventory targets either by themselves or as a shared responsibility.
- Several other functional areas are involved in setting finished goods inventory targets. This implies that the sales and operations planning (S&OP) process is being used with cross-functional representation for setting inventory targets by the sales department and executives, among others.

Accountability for Inventory Levels

Accountable for Inventory Levels		
	100%	Shared
Procurement / Purchasing	8.8%	26.5%
Merchandising	5.9%	11.8%
Manufacturing	2.9%	29.4%
Distribution Operations	5.9%	17.7%
Customer Service	0%	23.5%
Inventory Management	32.4%	35.3%
Forecasting	2.9%	35.3%
Marketing	2.9%	14.7%
Retail Operations	5.9%	2.9%
Sales	2.9%	29.4%
Finance / Accounting / Controller	2.9%	23.5%
Executives	5.9%	23.5%
Logistics and Transportation	2.9%	20.6%

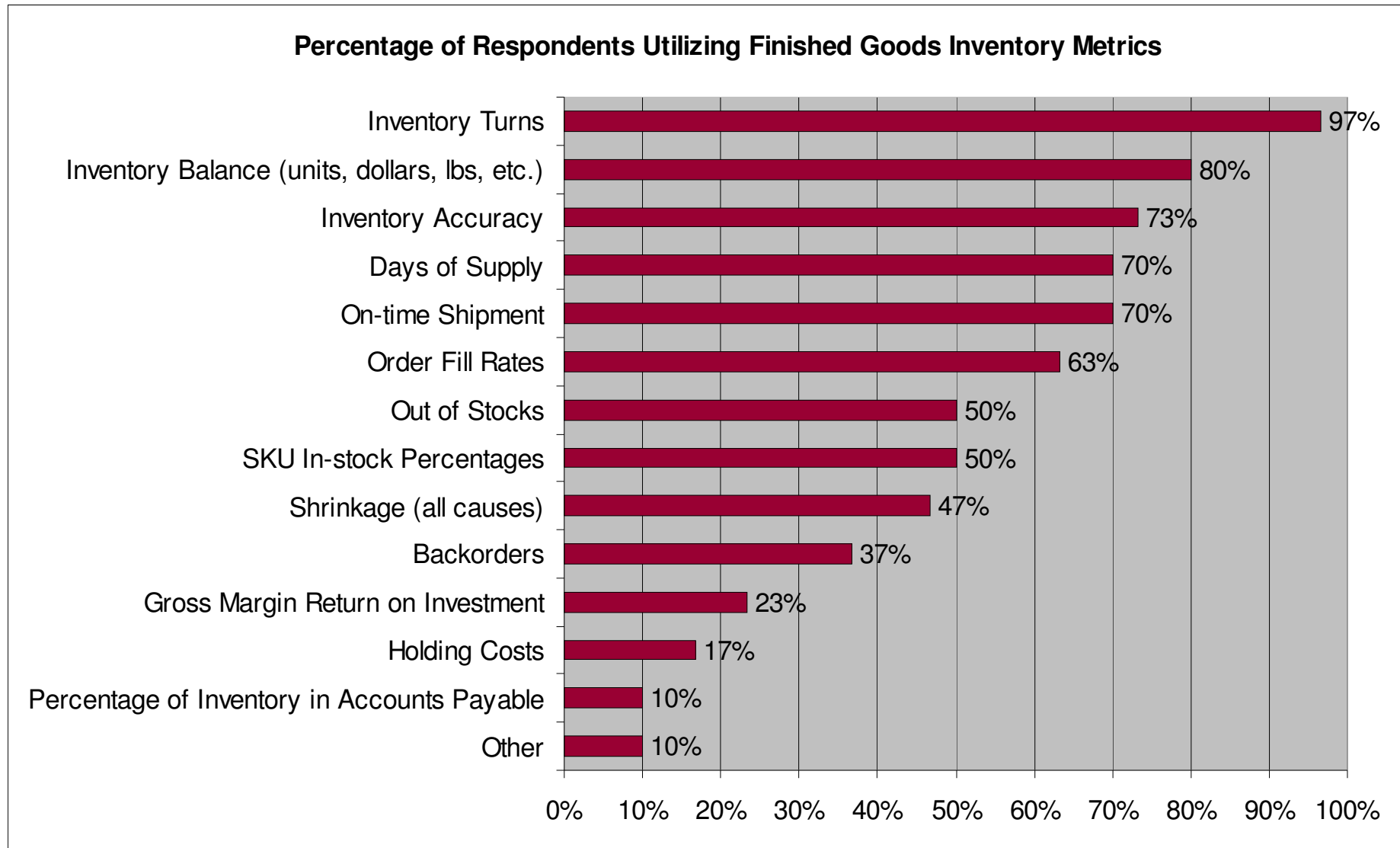
- Several different organizations within companies have responsibility for the levels of finished goods inventory.
- The inventory management department is most likely (68%) to be accountable for the inventory level, but many functional areas are also involved in managing finished goods inventory levels.
- This closely mirrors the results of the 2010 survey; however, different departments such as forecasting, sales and manufacturing are becoming more accountable for inventory levels.

Charged For or Owns Inventory

Charged For / Owns Inventory		
	100%	Shared
Procurement / Purchasing	8.8%	23.5%
Merchandising	5.9%	11.8%
Manufacturing	5.9%	23.5%
Distribution Operations	5.9%	17.7%
Customer Service	0%	17.7%
Inventory Management	23.5%	32.4%
Forecasting	5.9%	29.4%
Marketing	2.9%	11.8%
Retail Operations	5.9%	2.9%
Sales	2.9%	20.6%
Finance / Accounting / Controller	2.9%	20.6%
Executives	11.8%	23.5%
Logistics and Transportation	2.9%	14.7%

- Several functional areas of companies own or get charged for finished goods inventory.
- Inventory management (56%), executives (35%), forecasting (35%), procurement (32%) and manufacturing (29%) are the areas most frequently owning or getting charged for finished good inventory.

Finished Goods Inventory Metrics



Finished Goods Inventory Metrics

Detailed Analysis

- Not surprisingly, the inventory turns metric is the most commonly used measurement for finished goods inventory.
- Companies also frequently track the actual balances of dollars, units or pounds of finished goods inventory.
- Inventory accuracy is also viewed as an important metric by more than 73% of respondents. This is a change from the 2010 survey when inventory accuracy was only at 61.9% and was ranked sixth among the metrics being used by respondents.
- The next most popular metrics are days of supply and on-time shipment at 70%, roughly the same as the 2010 survey.
- The service metric of order fill rates is also regularly utilized at 63%.

Finished Good Inventory Dollars as a Percentage of Sales

Finished Goods Inventory Dollars as a Percentage of Sales					
	> 10% Reduction	1-9% Reduction	No Change	1-9% Increase	>10 % Increase
Year -End 2011 Versus Year-End 2009	15.4%	34.6%	30.8%	11.5%	7.7%
Year-End 2011 Versus Year-End 2010	8.7%	42.7%	34.6%	7.7%	6.3%

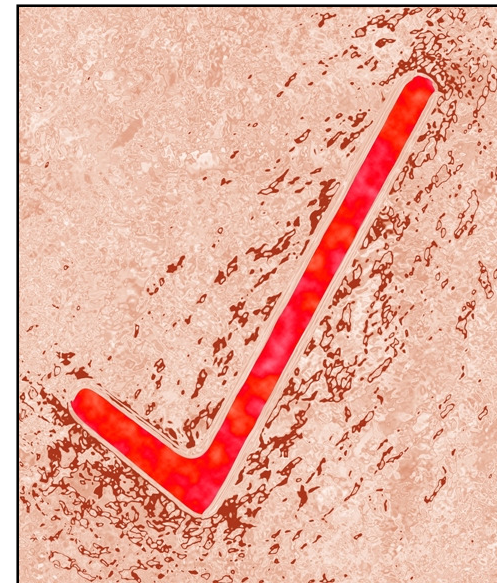
- More than 42% of companies experienced a 1-9% decrease in finished goods inventory as a percentage of sales between 2010 and 2011. These results indicate finished goods inventory reductions more than kept pace with sales changes.
- From 2009 to 2011 there were also major reductions in finished goods inventory as a percentage of sales, leading to a trend that continued through 2011.
- While the overall results show a decrease in finished good inventory relative to sales, some companies did not see this effect. Reasons for this may include that they were not strongly impacted by economic conditions or they did not reduce inventories proportionally with the sales movement.
- This is a similar trend to the results in the 2010 survey, however it was not quite as dramatic for companies with greater than 10% reductions. In the previous survey, these percentages averaged nearly 30%.

2011 Finished Goods Inventory Changes

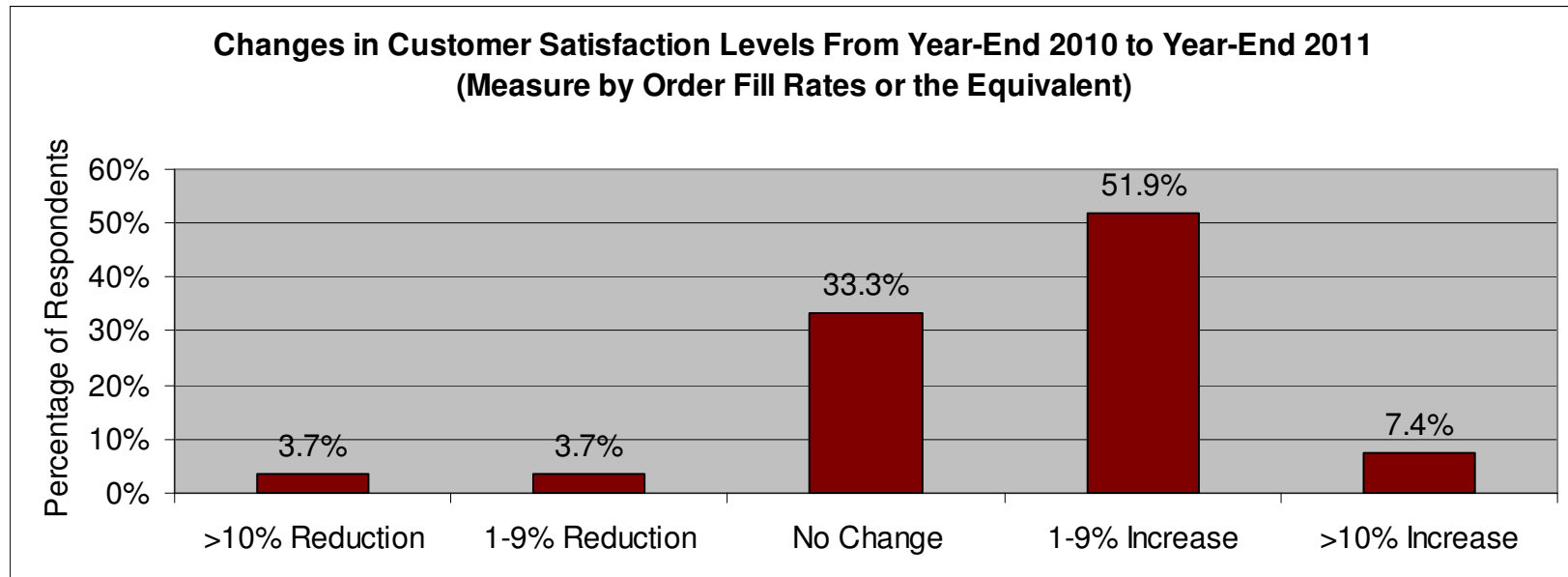
The reasons for generally reduced levels of finished goods inventories as a percentage of sales can be summarized as follows:

- Sales growth
- Better tools and technology for managing inventories
- Improved overall business conditions
- Increased focus on inventories
- Developed planning practices and tools
- Performance incentives for executives

Although not specifically addressed in the survey, recent activity with demand-driven supply chain management tools may be positively impacting inventory levels.



Customer Satisfaction Changes



- Customer satisfaction levels increased for nearly 60% of respondents, remained the same for 33%, and declined for 7%.
- Clearly, reduced inventory levels did not have a major negative impact on service levels.
- The 2010 survey had similar results, but had a smaller percentage of companies seeing increases in customer service level while reducing inventories. The 52% of companies indicating a 1-9% increase in customer service made up 39% in the 2010 survey.

Improvement Potential

Improvement Potential for Finished Goods Inventory Improvement Going Forward			
	Minor	Moderate	Major
Inventory Dollars	30.8%	50.0%	19.2%
Holding Costs	64.0%	28.0%	8.0%
Inventory Turns	25.9%	40.7%	33.3%
Customer Satisfaction	34.6%	57.7%	7.7%

- When focusing on the amount of opportunity for finished goods improvement in the future, responses are somewhat conservative. The majority of respondents indicate a moderate or minor improvement opportunity.
- Companies can expect this conservatism is the result of several years of inventory reductions, leaving little remaining opportunity in executives' minds. The uncertainty of the future for supply chains is also a factor in leaders' conservative perspectives.

Areas of Change for Inventory

Finished Goods Inventory Improvement Going Forward							
	Suppliers	Policies	Processes	Logistics	Technology	People	Customers
Inventory Dollars	72.0%	72.0%	56.0%	28.0%	56.0%	48.0%	32.0%
Holding Costs	26.3%	47.4%	63.2%	47.4%	36.8%	47.4%	31.6%
Inventory Turns	57.7%	69.2%	84.6%	34.6%	53.8%	65.4%	50.0%
Customer Satisfaction	33.3%	54.2%	75.0%	54.2%	58.3%	62.5%	54.2%

- Process changes are by far the most often identified area that needs improvement for finished goods inventory.
- The second area that needs the most changes going forward depends on the metric:
 - Suppliers' impact on inventory dollars;
 - Inventory policies' impact on inventory dollars;
 - Inventory policies' impact on inventory turns; and
 - People's impact on customer satisfaction.

Processes for Inventory Management

Inventory Management Process Insights	Percentage of Respondents
Replenish Inventory When It Runs Low	96.3%
Have Formal S&OP (or SI&OP) Process	84.0%
Have Formal Process for SKU Discontinuation	74.1%
Make Use of Product Hierarchy to Increase Forecast Accuracy	74.1%
Have Formal Process to Forecast New SKUs	66.7%
Do Markdowns	66.7%
Do Returns and Markdowns	65.4%
Do Forced Allocations	48.1%
Do Replenishment and Forced Allocations	48.1%
Have Access to POS Information	48.1%
Have an Internal Reverse Logistics Process	46.2%
Have Declining Net SKU Base	38.5%
Determine Optimum Safety Stock Working Capital vs. Lost Gross Margin	33.3%

Processes for Inventory Management

Detailed Analysis

- Most of the inventory management practices identified by respondents are being performed by nearly 50% or more of the survey group.
- More people are now discussing sales and operations planning (S&OP) processes, and a majority of companies already have a process in place. However, the success level of their processes is unclear.
- SKU discontinuation has long been a source of problems for operations, yet a large percentage of companies say they have a process in place.
- Contrary to the expectation that point of sale (POS) data is becoming readily available, a smaller percentage of respondents are using POS information for finished goods inventory management. Again, it is not clear how effectively this data is being used.
- The results of this survey are nearly identical to the results of the 2010 survey in regards to the use of processes to manage finished goods inventories, with the exception noted above on POS information.

Comments From Survey Participants

Below are some specific comments from respondents regarding other finished goods inventory practices and barriers that they felt were important:

- **Sales and Operations Planning** – Companies indicate that S&OP, metrics and accountability are key for continued improvements. Others indicate that S&OP is not working for their organizations to reduce inventory levels.
- **Shared Measures** – Implementing shared measures are important across manufacturing plants, demand management and customer service.
- **Technology Applications** – One company has implemented an inventory optimization system to set inventory levels with capital constraints.
- **Challenges Remain** – It is difficult to find the right balance between too much stock and customer fill rates. Some markets and regions do this well, and some are okay but could improve. SKU proliferation continues to make it difficult to manage finished goods inventories as they would like to manage them.
- **Response Time** – Another company is working hard on flow and the speed of flow so response time (cycle time) is targeted.
- **Business Conditions** – Business conditions have improved some, which has made continued inventory reduction possible.

Closing Thoughts

- In general, finished goods inventory management is performed at the corporate level. However, if the organization is very large, then division-wide management is often found.
- An inventory management department is mostly responsible for setting finished goods inventory targets, but the responsibility is shared by several supply chain functions, including sales and executives.
- Likewise, accountability for finished goods inventory levels and who is in charge or owns inventory is predominantly the responsibility of the inventory management function.
- Inventory turns, inventory balances and inventory accuracy are the top three measurements used for finished goods inventory.
- Overall, companies indicate that they saw reductions in finished goods inventory dollars as a percentage of sales in 2011. Sales growth, better tools and technologies for managing inventories and overall improved business conditions are the primary reasons cited for further reductions in finished goods inventories.
- Customer satisfaction levels (as measured by order fill rates) also increased, indicating that cutting finished goods inventory does not equate to negatively impacting customers.
- The supply chain areas in which changes are most needed with respect to finished goods inventory are processes, inventory policies, suppliers and people.

Closing Thoughts

Comparisons with the Previous Survey of 2010

The results from the 2010 survey are surprisingly similar to this survey. The trends showed continued progress with inventory reductions and little or no negative impact on customer service levels. Since 2010, some of the noteworthy differences between the results of the survey include:

- More collaboration and sharing of responsibility for setting finished goods inventory targets, accountability for inventory levels and who is charged or owns the inventory.
- Inventory accuracy moved up to become one of the top three metrics used by companies to measure finished goods inventory.
- While improvements have been made, potential exists for further reductions in inventories and better customer service. This is in spite of business conditions that are better but still not back to the levels they were in 2008.
- A stronger message that customer service can be improved while reducing inventories is a challenge, but one that most companies are overcoming.
- There is a significant drop in the percentage of respondents that say they have access to POS information. This is difficult to rationalize given the advancements in technology over the last few years, but a lack of tools for utilizing available data may be the reason.

Report Authors

To learn more about finished goods inventory management, as well as benchmarking and best practices, additional resources are available to members through the Supply Chain Consortium: www.supplychainconsortium.com.

Qualified companies may join the Supply Chain Consortium's LinkedIn or Xing Group: www.supplychainconsortium.com/rc/connections.asp

SUPPLY CHAIN EXCELLENCE

Bruce Tompkins
Executive Director

6870 Perry Creek Road
Raleigh, NC 27616

(919) 855-5527 Office
(919) 345-0479 Mobile

btompkins@tompkinsinc.com

**TOMPKINS
SUPPLY CHAIN
CONSORTIUM**

SUPPLY CHAIN EXCELLENCE

Chris Ferrell
Director

6435 Hazeltine National
Suite 105
Orlando, FL 32822

(407) 362-0369 Office
(919) 624-3947 Mobile

cferrell@tompkinsinc.com

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