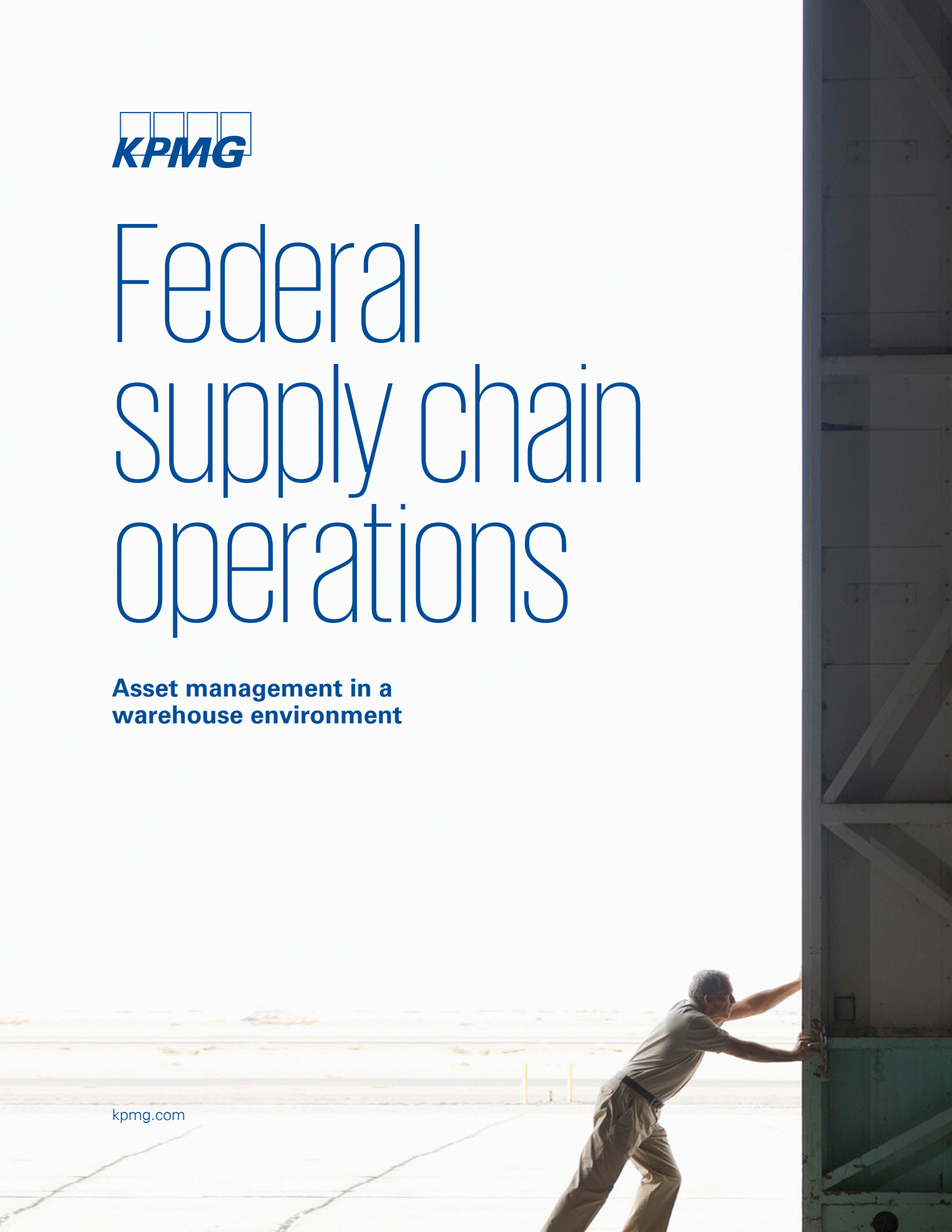
KPMG

Federal supply chain operations

Asset management in a warehouse environment



kpmg.com

What exactly is an "Asset Management" strategy?

It goes without saying that the priority of any Supply Chain Management team is to improve performance within the value chain, whether that's improving the cost structure, improving mission readiness, lowering working capital, or, more realistically, a combination of all three.

We see companies racing ahead today with supply chain initiatives of varying capabilities based on the proliferation of process and technology enablers. No value chain wants to be left behind. Make no mistake, a true shift in customer support is underway and changing the way we look at supply chains. The supply chain landscape we are seeing is too often characterized by many enablers and capabilities—assisted by process, technology, and analytics. However, the end-to-end integration from transportation, warehousing, inventory and asset accountability, and fulfillment are among the leading breakthrough focus areas in the value chain.

The road is complex. Success requires leaders to step up as dedicated agents of change, overseeing development and execution of intelligent and integrated supply chain roadmaps into the future. Additionally, as companies learn to tap into the potential of the vast amounts of data emerging across all areas of the operation, decision-making and action-taking are advanced to a new level.

Welcome to the new normal.

The new normal of smart warehousing and business models makes it critical for business leaders to be better informed. Our message is to become familiar with the intricacies of managing your assets at a high level of confidence—e.g., inventory accuracy greater than 99.5 percent, receipt to storage and to issue and the speed demand—what a high-end supply chain and asset management capability can accomplish for the organization. Drive game-changing transformation! Use this knowledge to draft a strategic, sequenced roadmap toward interconnected new processes, workplace cultures, and customer relationships.

Inbound

Where do you start? How do you assess the controls and processes required to ensure accountability? Asset management must begin the moment the trailer backs up to the dock. In order to ensure your overall inventory remains compliant, consider implementing a quality control plan for receiving. Two methods to ensure accuracy are to implement a sampling plan and cycle count of receipts. You have to ensure as close to 100 percent accuracy at receipt as possible. If not, this variability will permeate throughout the process, impacting overall inventory accuracy.

Set up quality control checks on receiving kits or inventory prior to being located into stock or required for use. Depending on the product and vendor, establish a reasonable percentage or all of the inventory to go to a specific QC area to be inspected. Vary the percentage depending on the reliability of the supplier, item, lot, kit, etc. If your turns are not immediate or cross-docking of the product isn't likely, locate the remainder of the receipts. Document occurrence where quality didn't reflect the vendor specifications. Organizations may wish to charge suppliers back for violations if they repeatedly fail to meet quality and/or quantity specifications.

Cycle count a percentage of receipts from a previous day or days. You can vary the requirements by receiver (trainees might have all receipts cycle counted), receipt type, supplier, or product kit type. Check that the inventory was recorded with the correct quantity, inventory attributes, and storage locations.

This practice of early identification eliminates inventory problems being identified during the pick process where the time constraints to correct are much tighter. In addition, there is a complication of paying for incomplete product.

Inspections

Inspection is limited to verification of the product/kit to the purchase order, correct part, correct quantity, correct packaging/marking, and correct pallet configurations (at times). In addition, received material is checked for damage so that claims can be made on the carrier if needed. When product is found to be nonconforming , it must be segregated to prevent use. In companies deploying leading practices, the inspection process initiates the returns process, and information gathered at the time of receipt is entered into the system and communicated to the supplier.

Receiving example: Kits

It is fairly common that your assets are received in "Kits." It is important to know that a kit is an assortment of stocked inventory and/or service products that is referred to by a unique item number. The items, and quantities of those products, included in the kit are called a bill of material (BOM). Organizations can stock two different types of kits: Build to Order (BTO) and preassembled kits.

Inbound scenario

A large commercial manufacturing facility was experiencing significant down time in their production lines due to inefficiencies of the Inbound Receiving and Put Away Process. Production Lines would stop daily because components/parts could not be found and picked from the Stock Room on time and delivered to the production floor. Items were received under the wrong part number and placed in the wrong location. In addition, the Receiving department was backlogged by at least 30 days. The Plant Manager and New Logistics Manager realized that the Receiving and Put Away Process was not efficient and accurate enough for the facility to build quality products to meet customer demands. Accuracy, receipt time, inventory accuracy was definitely a problem, which was way below industry standard.

Addressing this problem involved collaboration with the Manufacturing Facility to create a three-phased approach:

a) Solving the immediate problem of meeting customer demand

b) Identifying detailed process and procedures to include establishing key performance indicators (KPIs)

c) Implementing new technology along with training.

Solving this problem involved implementing a more defined traditional receiving process such as implementing a staging at receiving area, inspection of inbound shipments, put-away to reserve storage and replenishment to primary picking locations, automated receiving inspections for items to capture SKUs, condition of packaging, and quantities of inbound material. In addition, suitable packaging was addressed with the vendor for some items being delivered. KPIs were implemented to capture accuracy and errors percentages, inbound receipts per week, and employee performances. Quality Checks for Receiving Put Away were established to include Metrix for location accuracy of picking locations. Additionally, training enabled with new technology was identified as something that must be implemented throughout the Stock Room and Production Floor.

Once these KPIs/Metrix were put into place, picking times was reduced tremendously, kitting times were reduced because items were placed in the correct location. In conclusion, the receiving and put away process is one of the MOST important things for inventory management in the Federal/ Military Sector and Commercial Industry.

BTO kits

— BTO kits are assembled to fit existing customer orders; they are not built in advance. Individual components are maintained as stocked items. A company can use BTO kits as a short way of entering a commonly ordered list of products.

  Example: List of items needed to perform an oil change for a specific model or automobile. This concept can be used the same way for addressing kits needed to support a specific military operation.

— The BTO kit allows an order entry clerk to key in one part number to list four unique items on a sales order. This is significant because it saves time and helps ensure that a necessary item will not inadvertently be left off an order.

— Characteristics of BTO: They are not assembled in advance of a customer order and they are maintained in inventory as unique noninventoried products (only the components of the kit are stocked inventory items).

Note: BTO kits are not assembled in advance; there is no reason to record information to replenish inventory of the BTO kits. When receiving the material, all components must be verified as received and serviceable.

Preassembled kits

— **Preassembled kits:** An assembled or stocked kit is built in advance in anticipation of future customer orders. For example, a first-aid kit containing three types of bandages, two types of ointments, a snake-bite kit, a first-aid manual, and carrying case is put together and placed on a shelf waiting to be purchased. Note that components are also sold separately.

— **Replenishment:** The inventory of both the stocked kit and its component parts must be replenished. Usage must be recorded for both the components parts and the kit itself. With this said, usage for assembled kits must be recorded twice. Usage for component parts is recorded when the kit is assembled. This makes sense because we must reorder quantities of the component parts to build more first-aid kits in the future. Usage for the assembled kit is recorded when the kit is sold to a customer so that we will know when to assemble more kits and how many kits need to be built.

— **Assembled kits lead time:** There is a short time period between the time you recognize you need to replenish the stock of the assembled kit and when the inventory is restocked.

Note: Any kit that has kits associated within the kit would be referred to as Multi-level kits and the list of components is called "Multi-level Bill of Material." When receiving the material, all components must be verified as received and serviceable.

At a minimum, the below actions should occur when receiving kits into stock:

— Verify that the kit is complete and correct; if not, the kit should be rejected at receiving and place in a pre-Material Review Board (MRB) and notify planners, buyers, or order clerk.

— If correct, then material should be received against appropriate Purchase Order/1348-1A or appropriate receiving documentation.

— If material comes in and is nonconforming in any way, the organization should reject it to pre-MRB. Reviews should be completed in an agreed-upon determined time, usually 7 to 10 days.

— Remember, usually concealed damage claims must be filed with the carrier within 15 days of receipt of the freight (depending on a specific carrier).

Reports and key metrics

— **Receiving reports:** This report could generate all the material that has been processed for the work shift. In addition, it could identify the specific person who processed the material, which could be useful for training purposes on material that was processed incorrectly (e.g., mislabeled material, incorrect location, unit of measure, quantity, etc.).

— **Inbound shipment report:** Establish Inbound shipping report for disposition and distribution if not already established. Set dollar value for material that is critical or sensitive. This would require additional coordination with other services/military instillations.

— **Open move documents:** Move documents are used in warehouse management systems and monitoring them is essential to maintaining the WMS as well as inventory accuracy. The problems identified through open move documents are similar to those uncovered by monitoring staging locations. Generally a warehouse manager would monitor open move documents and staging locations. A report could be created that compares open move document quantities in staging locations to look for inconsistencies *(any inconsistencies could then be physically verified).*

Put-away location verification accuracy is the percentage of put-aways without discrepancies. This is a critical yet often overlooked metric. If an item is placed in the wrong location or in the wrong quantity, it sets up a chain reaction of failed transactions.

Inventory Control

Today's warehousing operations are no longer cost centers but rather strong differentiation drivers and integral to business or agency strategy. Companies insist on responsiveness, which means location accuracy, gear and product readiness, along with efficient storage and retrieval of assets. Warehousing operations are critical to an integrated and responsive supply chain that delivers improved performance and customer satisfaction. Warehousing operations with well-engineered physical layouts, lean work processes, task appropriate handling equipment and robust warehouse management systems deliver optimized inventory levels and appropriate response times. Optimized inventory levels take into account unique sourcing and distribution lead times, planned and unplanned work, carrying costs along with the ability to move inventory with velocity, and sustainability through a complex global supply chain.

This set of goals and objectives drive (demand) accountability of processes from the placement of product on storage to issue from storage. With this mission in mind, our four-step process establishes a set of parameters to achieve your Asset Management goals.

1. **Rapidly assess the current state baseline and organization model**. We have developed a well-established methodology that rapidly assesses the current state baseline or your warehousing operations and organization model to understand what opportunities may exist and how they can be implemented within a clearly defined roadmap. Our goal is to create an environment where inventory accuracy, efficiency of put-away, and pick are maximized and the yield or effectiveness of the operation operates at the level the business demands.

2. **Assess and select the optimal methodology for placing product on storage.** Put-away and storage is a warehousing strategy employed to increase the efficiency of product storage and inventory. Increasing the efficiency of retrieval, accuracy of inventory, and reduction in waste (or maximization of cubic feet of storage) are just a few of the KPIs and metrics that businesses and agencies demand. A balanced approach should be taken to develop the optimal storage methodology. This typically will not occur rapidly but evolutionary as the process is developed and matured. The advancement normally follows stages of development:

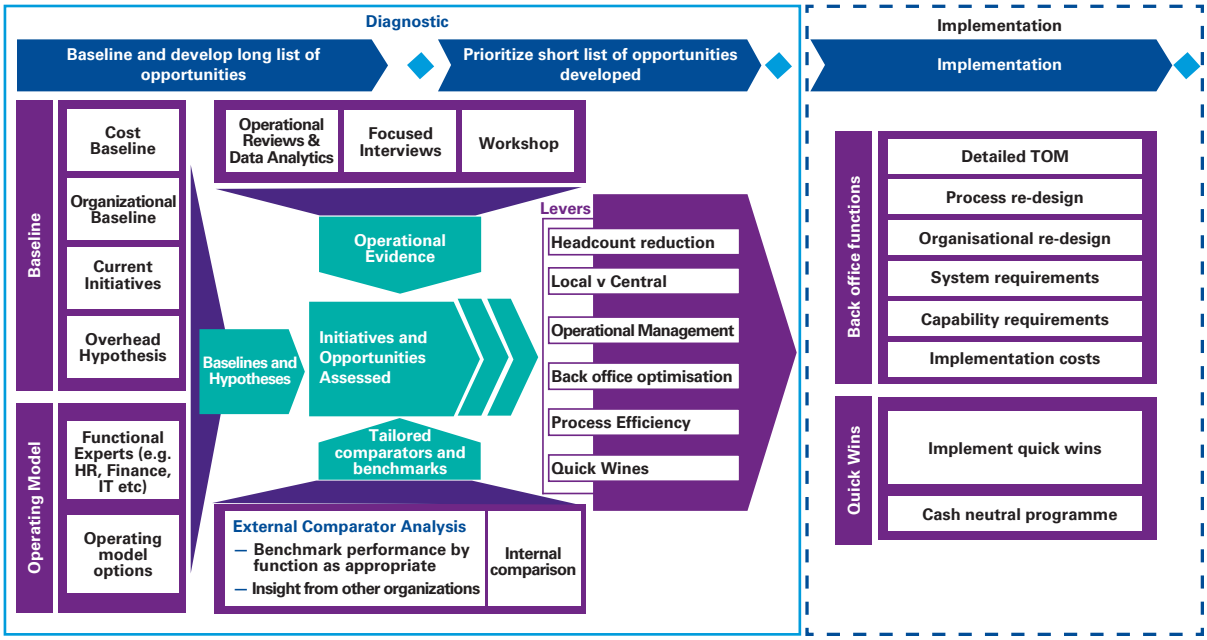
   - **First Come First Serve.** Placement of product randomly on the first open space observed
   - **Batched by Zone.** Creation of zones within the storage system for "like" product or similar product types. (e.g., wheels, transmissions)
   - **Batched and Sequence.** Placement of product on storage in the build, usage, or manufacturing sequence to facilitate efficiency in movement and travel by the Material Handler
   - **Location to Stocker.** Assignment of stocking location geography/shelves to specific Material Handlers
   - **Automated Put-away.** Dynamic placement of product on storage locations as defined by the Warehouse Management System.

In alignment with the method deployed, there must always be an audit process to verify the material was accurately received, labeled, and assigned to the correct location. Validate the previous days put-away and advancement into the next receipt.

3. **Physical inventory methodologies.** Inventory management is the backbone of the warehouse. Warehouse leadership typically manage customer service, safety, and a team of material handlers in an effort to maintain accountability of the product. Strong inventory management is an enabler for inventory accuracy, replenishment, and reporting metrics.

We have completed many similar projects for clients across all sectors.

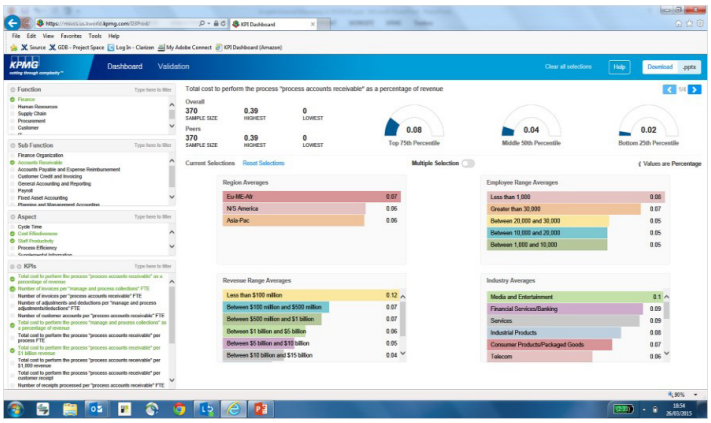
Our approach is established and accelerates benefit delivery for our clients.



Accelerators are key to this process:

- **Data.** Actionable data, most warehouse management systems (WMS) provide a dashboard of real-time delayed and failed processes that need further action.

- **Short Interval Control (SIC)**. Program to both gather metrics and increase efficiency. SIC can be described as a Kaizen process encouraging motivated personnel to work as a team to make regular and incremental improvements to warehouse processes.
- **Cycle Counting.** A cycle counting program that has dedicated resources and is frequent yet robust will enhance inventory accuracy. Consider a program of segmentation that targets high-value and high-volume inventory with increased counts—ranking method or classification. Additionally, a geographic method ensures a logical flow while a random selection method tests the system and limits the amount of preparation by the supply tech. Accuracy, efficiency, audit compliance, and even material handler morale improves as inventory accuracy rises.



- **Measure.** What can't be measured can't be improved. Identify causes of delayed process and failed process and gather metrics of the same.
- **Training.** Both sustainability and refresher training. Training should cover everything from the basics to more advanced tasks. Training should deliver the expectations of the role. Training documents should be readily available for quick reference either physically or online.
- **Slotting.** Fixed versus random, organizing inventory to facilitate picking. "Fixed bin" is just that, inventory resides in the same bin regardless of pick volume generally because that's historically how the warehouse managed their slotting. "Random" implies inventory assigned to a pick zone, many bins reside within a single zone, within the warehouse. A study of the inventory mix and storage media by an expert versed in slotting optimization will yield a best fit. As a rule of thumb, it costs three times as much to pick from a vertical location than from the ground floor.
- **Inventory methodologies typically deployed in a warehouse environment.**

a. **Periodic Physical Inventories.** Inventories that are performed during a set period of time (in a day, week, or month). They have a predetermined start and stop date. The subset to this inventory would be an Open or Closed Store inventory process.

» Closed Store physical inventory will actually call for operations to cease. The storeroom/ warehouse will be actually closed and no warehouse operations will be conducted.

» Open Store physical inventory will continue. Warehouse operations or a portion of warehouse operations are still open to continue support, issuing, receiving, etc. During this type of inventory, close reconciliation, communication, and planning is critical to perform an accurate inventory.

b. **Cyclic Inventories Reference.** This is a form of physical inventory in that there is a set start and stop date. The difference lies in how, not when, the inventory is performed. Cyclical inventories break down the inventory process into manageable chunks. This would be ideal for large inventory management to increase inventory accuracy. Cyclic inventories are also an accuracy audit technique where inventory is counted on a cycle schedule rather than once a year. A cycle inventory count is usually taken on a regular, defined basis and often more frequently for high-value or fast-moving items and less frequently for low-value or slow-moving items.

» There is a certain number of items to count every workday. This breakdown is usually done by ABC Grouping. The purpose of cycle counting is to identify items in error, thus triggering causative research, identification, and elimination of the cause of the errors. Count Frequency can be determined by the organization.

» A - Items must be counted three times each per year (approximately 70 percent of the inventory)

» B - Items must be counted two times each per year (approximately 20 percent of the inventory)

» C - Items must be counted one time per year (approximately 10 percent of the inventory).

c. **Sampling Inventories.** This type of inventory looks to identify a confidence level, specifically 90 percent accuracy level or a 10 percent risk level.

d. **Stratified Inventories.** This type of inventory is used when confronted with the problem of having a mixture of product.

   » 20 line items of Industrial Plant Equipment, 30 of Special Test Equipment, 250 of Special Tooling, and 100 of Material. To simplify things, you would stratify the property by dollar value.

e. **Inventory by Exception.** This type of inventory is by exception as performance by "touch." Whenever an item has been touched during the timeframe, it is considered physically inventoried. This touch can be accomplished when a required action is needed such as calibration, maintenance, authorized utilization, move tickets, receipt of an item, issuance of an item, etc.

4. **Customer satisfaction – deliver value as defined by the customer.** Inventory metrics are a key indicator of product control and accuracy. Metrics and KPIs can provide insight into your overall levels of performance and, in the end, customer satisfaction. Metrics that matter:

   – **Inventory Accuracy.** The percentage of accuracy as measured by a physical inventory and compared to your inventory records (Floor to book comparison)

   – **Warehouse utilization.** Occupied storage space/storage capacity x 100 percent

   – **Storage space costs.** Overall warehouse cost/occupied storage spaces

   – **Product movement costs**. Overall storage cost/storage movements

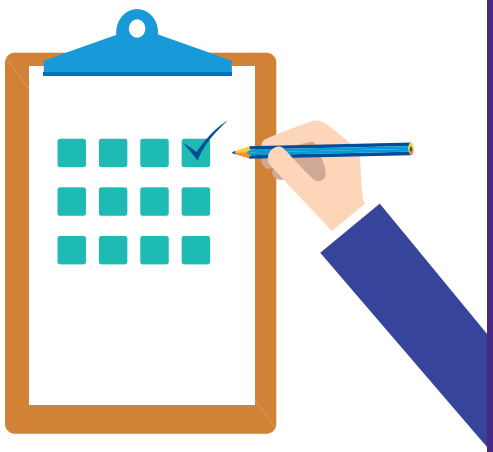
   – **Customer fill rate cycle time.** Actual ship date – customer order date

   – **Product fill rate.** Delivered quantity/ordered quantity

   – **Carrying cost.** Product carrying cost/overall cost

   – **Customer order fill rate.** Orders delivered as demanded/ total quantity of orders.

Our approach to inventory control begins and ends with the performance of the product—accuracy, accountability, efficiency, and effectiveness. Our approach is centered on understanding the current-state performance, utilizing experience and benchmarking to deliver value rapidly, quantitatively define the processes, and develop a future-state strategy that is actionable. Execution on a strategy is paramount—delivery and results!



Warehouse storage importance

Warehouse storage operations is an important aspect of inventory management. Federal and commercial customers both realize this importance.

A large Government Agency realized its warehouse storage problems when assets could not be quickly located in the warehouse. The agency experienced problems such as filling pick ticket orders, inaccuracies in stock levels, regular stockouts on different assets, and shortages were all below industry standards. In addition, the agency was transacting miscellaneous gains and losses throughout the year and maintained excessive stock on many assets that was no longer needed. This caused numerous problems, such as finding available storage space for assets, being received for put away on storage locations, and excessive spending to purchase new assets for military organizations. In some cases, warehouse storage operations were directly responsible for deficiencies in some military organizations' unit readiness. Additionally, spot inventories and cycle counts were below industry standards and not being conducted on a regular schedule.

Solving this problem involved establishing KPIs that could identify areas for improvement in warehouse storage operations. The agency started capturing error rate/percentages in the following areas (weekly stockouts, shortages, fill rate on pick tickets, and spot inventory accuracy). Assets were broken down into ABC Grouping to conduct cycle counts. This required the stock to be inventoried more often which increased inventory accuracy.

— A - Items must be counted three times each per year (approximately 70 percent of the inventory)

— B - Items must be counted two times each per year (approximately 20 percent of the inventory)

— C - Items must be counted one time per year (approximately 10 percent of the inventory)

Once KPIs were put in place, the agency updated Standard Operating Procedures, implemented leading practices in warehouse storage operations such as conducting location verification of assets with a standard of 100 percent accurate, transaction report which validates all physical movement of assets from one location to another, and other location maintenance functions that ensured assets were stored and staged properly for issue. Additionally, reports were creates such as denial report on items not able to be filled, list of shortages, reorder points on critical fast-moving stock, calculated lead times and demand forecasting to ensure the stock was being maintained at the right stock levels.

In conclusion, storage operations is a very important part of inventory management. Both federal and commercial industries must consider all of the above and more to include the type of storage system *(Bin, Medium, Bulk, Rack, Storage Space Calculations, Material Handling Equipment, etc.)* that's best suited for its storage operations.

Outbound

A good execution of an inventory strategy prepares the way for a successful outbound flow. The outbound teams are the last stage in warehouse asset management. The information below provides an overview of picking, staging, quality management, and loading/shipping.

— Pick.

- **Speed.** When considering the level of effort involved in warehouse operations, the greatest expenditure of effort is in the picking process. To gain efficiencies in picking the labor time to pick orders needs to be reduced and this can be achieved in a number of ways. While technology can make a positive difference, there's no substitute for careful time-tracking, physical organization of space, and willingness to spend money where it's needed to improve efficiency.
- **Inventory Placement.** Companies with the most efficient warehouses have the most frequently picked items closest to the shipping areas to minimize picking time. These companies achieve their competitive advantage by constantly reviewing their sales data to ensure that the items are stored close to the shipping area are still the most frequently picked.
- **Warehouse Layout.** Warehouse layout is also important in achieving greater efficiencies. Minimizing travel time between picking locations can greatly improve productivity. However, to achieve this increase in efficiency, companies must develop processes to monitor picking travel times and storage locations regularly.
- **Pick Tickets.** Warehouse operations that still use hard-copy pick tickets find that it is not very efficient and prone to human errors. To combat this and to maximize efficiency, leading warehouse operations have adopted technology that is some of today's most advanced systems. In addition to hand-held RF readers and printers, companies are introducing pick-to-light and voice recognition technology. In a pick-to-light system, an operator will scan a bar-coded label attached to a box. A digital display located in front of the picking bin will inform the operator of the item and quantity that they need to pick. Companies are typically using pick-to-light systems for their top 5 percent to 20 percent selling products. By introducing this system, companies can gain significant efficiencies as it is paperless and eliminates the errors caused by pick tickets.
- **Warehouse Voice Picking Systems.** Voice picking systems inform the operator of pick instructions through a headset. The pick instructions are sent via RF from the company's ERP or order management software. The system allows operators to perform pick operations without looking at a computer screen or deal with paper pick tickets. Many leading warehouse operations have adopted voice picking to complement the pick-to-light systems in place for their fast-moving products. Although many companies will not be able to afford new technologies for picking, we've seen here that there are a number of leading practices that can be adopted to improve efficiency and reduce cost.

Outbound at the speed of customer demand

A large Government Military Service realized their processes for Outbound Issues were not meeting customer demand. Pick operations, staging, kitting, and shipment were consuming too much time (Speed) and the accuracy of the kits (Quality) was below prescribed KPIs/Metrics. KPMG engaged the opportunity in collaboration with the service to create three-phased approach:

a) Solve the immediate problem and meet customer demand

b) Make the process flow

c) Enable with technology and more efficient and effective operation.

Pioneering this set of solutions involved installing and enabling a "Pulsed Flow Line" to help ensure flow. Introducing technology enablers to digitize processes, analytics to predict demand spikes, and simulation models for "What If" analysis led to increased speed and accuracy. The enablers unlocked significant productivity benefits. Gains have already been realized through increased speed across the network, reduction in average cycle times, and reduced variability.

Outbound Issue and Asset Management has to be a primary focus—aligned to your customer. Add to this scenario the implications of a Military Service and deployed men and woman—the speed and accuracy of the mission increases exponentially. All operations leaders need to respond to their customer's agenda in a new way. They need to act as the bridge between the need or demand and the ways in which the process and technology can serve these customers.


短 03-04-60
短 03-05-60
短 03-07-60
短 03-08-60
短 03-05-50
短 03-06-50
短 03-07-50
短 03-08-50
短 03-04-40
短 03-05-40
短 03-06-40
短 03-07-40
短 03-08-40
短 03-05-30
短 03-06-30
短 03-07-30
短 03-08-30

— **Staging.**

- Staging refers to a designated storage area to prepare inventory before shipment. The staging area should be in close proximity to the dock door the shipment is assigned to. Leading practices are to keep the staging area organized to keep an efficient flow of outbound shipments.

— **Quality Management.**

- The mission of Quality Management is to maintain a high level of customer satisfaction through continuous assurance and improvements in information technology products and services by developing, documenting, and maintaining a comprehensive quality management program.
  - **Quality Planning.** Identifies which standards are relevant and how to satisfy them (e.g., cost-benefit analysis, benchmarking). Components would be the creation of a quality management plan, identification of measures and metrics, and acceptance criteria for go-live.
  - **Quality Assurance.** Activities that ensure that the service will have all processes needed to meet requirements (e.g., quality audits).
  - **Quality Control.** Iterative process to ensure that quality standards are being met. These are defined in the quality management plan. The outcomes would be acceptance decisions, rework, and process adjustments.
- Leading Practices:
  - **Document** – Quality measures and metrics should be centrally documented.
  - **Involve Stakeholders** – Involve participants and stakeholders in the identification and definition of service quality standards.
  - **Solicit Feedback** – Solicit feedback from customers, stakeholders, and implementation team regarding quality metrics, proposed measures, and quality baselines.
  - **Be Proactive** – Focus on detecting and addressing quality early in development before it becomes an issue.
  - **Iterative** – Quality Management is an ongoing, iterative process that is conducted throughout the product lifecycle.
  - **Track Trends** – Trend quality metrics and measures over time to provide a graphical representation of the trend of conformity to defined quality metrics.
  - **Review** – A regular review of quality standards, metrics, and measures is good practice. Depending on the complexity of the service, the review process can be as frequent as weekly.
  - **Thresholds** – Establish agreed-upon threshold that defines when certain corrective action needs to be taken to bring a product back within acceptable boundaries of performance.
  - **Analysis** – Analyze the impact of quality on the product, development, and service.
  - **Act Quickly** – Obtain quality feedback as quickly as possible to avoid escalation of potential quality issues.
  - **Archive Quality** – Quality measures and metrics should be archived as historical data and incorporated in lessons learned.
  - **Disseminate Quality** – Disseminate appropriate quality measures and metrics data to product/service team and appropriate stakeholders.
  - **Continuous Improvement** – Constantly look for ways to increase service quality.
  - **Triple Constraints Plus One** – Analyze quality based on scope, time, and cost impact to the service. This evaluation will help understand the costs and benefits of applying an appropriate level of quality. Ensure user's expectations are met.
- Loading/Shipping
  - Boxes should be packed until full, which means if whatever is in the box doesn't fill its volume completely, the rest of the available area should be packed with protective cushioning or packing paper to prevent items in the box from shifting during transport.
  - Boxes should be secured on a pallet with stretch/shrink wrap.
  - Pallets can be efficiently stacked, arranged in rows, and organized by loading order in front of the assigned dock.
  - In general, tallest and heaviest items should be loaded first, followed by the longest/widest and lightest items. The main practical reason for this is simple: taller items can't be stacked efficiently, and heavy items should always be as close as possible to the nose of the truck to avoid tipping accidents.
  - Once the truck is loaded, use load bars or load straps to secure shipment.

Reports/Key Metrics

- **Daily Picking List:** Report to print a list of picking information. This can be used to manage the daily work load in order to meet weekly, monthly packing and shipping requirements.
- **Goods in Transit (Due In) Report:** This report displays all shipment to and receipts from in transit for a specific period. This report could be important to identify and coordinate material organization for incoming large shipments.
- **Open Shipping Orders:** Monitoring open shipping orders is an important part of warehouse operations. Shipping orders will often have statuses assigned and updated as they are processed from order entry to shipping and invoicing. To satisfy inventory accuracy, it's a good practice to monitor any orders that have been released to the warehouse for shipping but haven't yet shipped. This report should be viewed at the end of the day to see what has not shipped and is still in the warehouse.
- **Staging Location Reports:** Staging locations are usually for short periods term storage, they would select based upon the expected length of time inventory would reasonably remain in a staging location in their specific operation. If something is in the location for an extended period of time, this would be a sign that some type of problem exists.
- **On Time Delivery (OTD) Report that tracks material outbound shipments.** This report could be developed to track those shipments shipped on time to the customer and those that were held for internal reasons. Root Cause Analysis (RCA) should be conducted to correct errors for late outbound shipments.
- **On Time Shipments Metric** that takes into account the actual delivery of DLA material to the designated customer. Calculations would be Total Orders on Time and Complete/Total orders Shipped. This measurement identifies the significance of having a tight connection with outbound transportation operations. In addition, this calculation requires the need to have a method for tracking performance of carriers as well.

How KPMG can help

KPMG understands the challenges and opportunities facing the supply chains of our clients. Every day, our people work with the world's heavily integrated and complex supply chains as they pursue excellence in customer satisfaction and transformation. Our experience and research give us insights into the reality surrounding these transformative capabilities and the complications of achieving the KPIs and metrics desired. Our approach to Asset Management validates our conviction that to help enhance value, maintain competitive advantage, and drive competitiveness, leaders must advance their processes, technology, and analytics transformation journey to achieve success.

No matter where you are on your asset management capability journey, KPMG can help. Our supply chain and operations team can help your organization to:

- Identify what your supply chain and asset management process should look like and the timing for transformation
- Create your asset management transformation vision, strategy, and roadmap
- Take a holistic approach that leads with process, technology, and analytics driving to overall performance
- Implement the capabilities to achieve this roadmap.

Leading businesses and agencies work with KPMG because we take a process and technology-agnostic approach that offers clients truly objective insights and sensible choices. With deep leadership and certified, trained subject matter professionals in key areas such as digital supply chain, data and analytics, network strategy, process optimization, change and risk management, and demand planning, we cover all the elements of the asset management and supply chain transformation journey from strategy through execution.

Want to learn more about KPMG's Federal Supply Chain capabilities? Learn more **here**.

Contact us

Patty St. George
Partner
T: 703-286-8470
E: pstgeorge@kpmg.com

Chad Jones
Director
T: 703-343-2226
E: chadjones@kpmg.com

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

kpmg.com/socialmedia