

Building Supply Chain Flexibility: Balancing JIT, JIC and Outsourced Inventory Models

In today’s world of geopolitical uncertainty and unpredictable disruptions to the global supply chain, manufacturers need to rethink their approach to sourcing and inventory management. Relying solely on a just-in-time (JIT) inventory management strategy has proven risky, as the COVID-19 pandemic has shown, causing production delays across many industries. This recent disruption is not an isolated case. Ongoing instability in key regions such as the Red Sea, tensions between China and Taiwan, raw material shortages, and escalating trade wars all pose significant threats to global supply chains.

For manufacturing companies this means reduced production capacity which can lead to excessive costs, missed deadlines, and risks for the end-user. Combine these risks with rapid product innovation and short lifecycles, and it becomes clear that JIT is not enough to ensure seamless operations.

Adopting a just-in-case (JIC) inventory management strategy, i.e. maintaining higher levels of stock on site, offers a proactive way to protect against unforeseen disruptions. This approach can provide some insurance against unpredictable lead times, component shortages, and product obsolescence. However, it comes at the risk of overbuying inventory and inventory carrying costs. The table below shows the tradeoffs between JIT and JIC inventory management strategies. The key is finding the right balance.

Supply Chain Consideration	Just-In-Time	Just-In-Case
Minimizes Carrying Cost / Overhead Costs	✓	✗
Reduced Waste / Unused Stock	✓	✗
Minimizes Working Capital	✓	✗
Ability To Rapidly Meet Demand Increase	✗	✓
Supplier and Market Instability Risk Reduction	✗	✓
Inoculation Against Supplier And Transit Delays	✗	✓

CRAFTING A PROACTIVE APPROACH TO SUPPLY CHAIN MANAGEMENT

Finding the right balance between Just-in-Time (JIT) and Just-in-Case (JIC) inventory strategies requires a careful assessment of several key factors. Here’s how businesses can approach it:

1. Assess Supply Chain Risks

Identify vulnerabilities by analyzing the stability of your supply chain, focusing on geopolitical risks, raw material dependencies, and potential disruptions (e.g., natural disasters, trade restrictions).



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2. Evaluate Component Criticality

Prioritize your inventory for components that are critical to production and have long lead times or a high risk of obsolescence. For non-critical items keep JIT for components that are easily available or have multiple suppliers, to avoid tying up capital in unnecessary stock.

3. Analyze Demand Volatility

Use historical data and market trends to forecast demand fluctuations. For highly volatile demand, maintaining higher stock levels is safer. Consider how quickly product iterations change in your industry. Short lifecycles may require more dynamic inventory planning.

4. Strengthen Your Supplier Relationships

This is crucial for reducing risk and maintaining lean production times. By improving these relationships, you can streamline operations, reduce inefficiencies, and ensure timely product deliveries.

5. Evaluate Alternative Sourcing Strategies

Balance the costs of excess inventory with the risks of supply shortages by partnering with a company that provides total inventory management & supply chain assurance services. This partnership approach can help optimize your inventory, reduce costs, and minimize potential losses due to obsolescence or supply chain disruptions by enabling timely access to critical components without having to hold excess inventory.

Working with a supply chain assurance partner allows you to minimize the risk to your supply chain while effectively balancing financial considerations like cash outlay. Leverage the partner's expertise and use financial models to determine the optimal inventory level that protects you from supply chain risks, while benefiting from the partner's flexible supply options and minimizing potential losses due to obsolescence, fraud, and long lead times.

6. Develop a Hybrid Approach

Consider a hybrid approach by engaging a strategic partner that offers comprehensive supply chain assurance services. This includes end-to-end management of Electrical, Electronic, Electromechanical (EEE) parts sourcing, proper storage, handling, packaging, and management of sensitive electronic components in addition to applying the right level of authentication and quality screening for materials from both authorized and independent sources.

Also critical in selecting a supply chain assurance partner are accreditation to applicable sourcing and test standards, forward-looking supply chain analysis, the ability to manage precise delivery schedules to meet specific Bill Of Materials (BOM) requirements, a high level of security and the ability to profitably and practically utilize excess inventory. This integrated approach strengthens the efficiency and reliability of the supply chain.



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“More of our customers are asking for us to provide a full range of supply chain services including strategic sourcing, inventory management, electronics authentication & testing services, excess inventory solutions, and supply chain analytics” – Mike Schwarm, Chief Growth Officer for Certify Holdings

ESSENTIAL CRITERIA FOR EVALUATING OUTSOURCED COMPONENT SUPPLIERS

When seeking an outsourced partner for your electronic component supply, it's crucial to find one that aligns with your business component procurement and disposition strategy. Here are the key capabilities to look for:

- a. **BOM Inventory Management** - a partner that will apply advanced analytics to your bill of materials (BOM) sourcing requirements, ensuring that stock levels are optimized to avoid overbuying or under-purchasing, which can result in excess costs or production delays.
- b. **Verified Supplier Network** - a partner that utilizes a trusted and verified supplier network, ensuring the authenticity and quality of the components, particularly for sensitive electronic components and assemblies.
- c. **Comprehensive Supply Chain Support** - a partner that offers end-to-end services, from procurement and storage to handling, AS6171 testing, AS6081 sourcing, and delivery. This includes on-hand inventory management, shipping directly to production sites, and value-added services like authentication testing, quality screening, and compliance with flow-down requirements.
- d. **Excess and Obsolete Inventory Management Solutions: Maximizing Value for Your Excess Inventory** - SMT Corp, in partnership with EXCESSER Inc., offers customized strategies for managing excess or obsolete inventory of board level components designed to provide flexibility and maximize your return on investment. Our solutions include:
 - **Buyout**: we evaluate your excess and obsolete inventory and provide you with an outright purchase offer, including transportation from your facility. This allows for immediate liquidity and hassle-free removal.
 - **On-site consignment**: For businesses that need flexibility, we offer a consignment solution where we store and publish your inventory for sale. You retain the ability to recall items as needed, while sharing in the resale proceeds paid to your company monthly.
 - **Profit-Sharing Model**: This model combines an upfront payment with the potential for future revenue. You receive an immediate payment while benefiting from additional resale revenue over time, optimizing both your depreciation and your long-term profits.

By working with SMT Corp, you can turn excess inventory into revenue, reduce your balance sheet, reduce waste, and improve your operations.

- e. **Inventory value add and storage** - a partner that offers in-house services like climate-controlled storage, electrostatic discharge (ESD) protection, and advanced counterfeit



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- detection labs ensures the highest level of supply chain integrity. Taping & reeling, baking & sealing, dry-packing, and solderability testing further enhance their value.
- f. **Flexibility and Visibility** - a partner that offers the ability to recall inventory when needed at no additional cost. They should also provide 24/7 access to view inventory and sales history via a secure web portal.

STREAMLINING SUPPLY CHAIN ASSURANCE - EASIER THAN YOU THINK WITH SMT CORP COMPREHENSIVE SOLUTIONS

SMT Corp, as your partner, offers comprehensive supply chain management from sourcing to delivery of components. Our state-of-the-art, custom-built facility features climate-controlled, electrostatic discharge (ESD) safe storage that ensures the highest level of protection for your components.

Our in-house ISO17025 accredited laboratories are equipped with the latest counterfeit detection and quality screening technology and are operated by certified inspectors who meet AS6081 procurement and AS6171 testing standards. Additionally, we offer services such as taping & reeling, baking & sealing, dry packaging and solderability testing are all performed on-site, adding value to seamless supply chain integration all under one roof.

We also offer customizable excess inventory programs, in partnership with Excesser, Inc., designed to maximize your resale value with the support of our experienced sales team. If an item is ever needed to satisfy an assembly constraint, or manufacturers process we offer the flexibility to recall items free of charge. Plus, you'll have 24/7 access to your inventory and sales history via a secure web portal.

With SMT Corp, you're choosing reliability, security, and unparalleled value in supply chain management.



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About SMT, Corp

SMT Corp is the industry leader for sourcing & authentication of DMSMS and hard-to-find electronics components, electrical testing services, and inventory management solutions. SMT Corp is a highly accredited and recognized expert with full on-site sourcing (AS6081), authentication (AS6171), and electrical testing to mitigate the risk of counterfeit, cloned, altered and substandard products from entering the critical infrastructure supply chain. <https://smtcorp.com/>

About Certify Holdings

Certify Holdings is a full lifecycle strategic partner for the defense and aerospace market, and other markets requiring high reliability electronic solutions. Certify Holdings supports our customers through the early project design stage with design-in support leveraging a wide range of Hi-Rel and RF electronic modules and components, throughout production with sourcing and distribution services, and into obsolescence / end of life with sourcing and authentication of hard-to-find electronics. Throughout the project lifecycle, Certify Holdings supports our customers with test solutions and services. <https://certifyholdings.com/>