Lean Supply Chain Best Practice Process Benchmark Framework

Overview

This document draws from the results of an APICS 2004 survey on the development and adoption of lean principles in supply chain management. It does not represent an endorsement of a particular company, methodology, or solution, but rather, it demonstrates APICS' efforts to provide you with insight into current issues and emerging trends.

Lean manufacturing's impact on businesses today cannot be ignored: lean principles have enabled firms to be more flexible and more profitable. This has led many to ask if these same principles can be applied to logistics and supply chain management--how do firms practice the fundamental principles of lean to build adaptive, flexible and creative supply chains?

Over the last few years supply chain professionals have been working on means to reduce wasted effort and excessive inventories by applying the principles of lean manufacturing across the supply chain. In order to accomplish this task supply chain partners must first understand what Lean is, and then increase the level of collaboration and teamwork between themselves.

As the trend to outsource non-core functions continues we see that improved communications and visibility between supply chain members is imperative, and today we are blessed with technology that can make this possible. Even though the partners may be a half a world apart geographically, they can exchange accurate information in a real time basis. However, having technology available is of no benefit if it is not properly implemented, understood or used.

While the concept of a Lean Supply Chain is not new, it is clear from our survey that many organizations have yet to adopt it. And, while the adoption rate is low, the benefits are seen to be quite high. Actionable information should lead to quantifiable results and our research bears this out. Survey participants who were lean adopters reported improved collaboration, an increased use of standards in processes and materials, reduced SKU counts and inventory levels, and a general reduction in Cost of Goods Sold when compared to the non-adopters. A Lean Supply Chain is contributing to the bottom line.

The *Lean Supply Chain Best Practice Process Attributes and Benchmarks* are meant to be used as a tool to help companies identify potential gaps in their processes. Practitioners can use this tool to identify process strengths and weaknesses, and then focus their efforts on those areas where improvement efforts will drive the most benefit. Results can be shared and compared (with discretion) with other organizations in your supply chain to improve overall effectiveness.

We hope you find this tool helpful as you continue the process of devising, reviewing, and improving supply chain management initiatives within your company. They all should be evaluated against the end-goal of an adaptive cross-enterprise supply chain; one whose efficiency is only matched by its effectiveness.

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		Poor Practice	Inadequate Practice	Common Practice	Good Practice	Best Practice
1.0	**Demand Management**					
1.1	Demand Signal	• Product is "pushed" through the channel based on forecasts	• Demand forecasts are created based on actual usage of product (current stock levels, or min/max levels, or order points) and projected sales	• Downstream Supply Chain Partners provide periodic forecasts to make the immediate upstream partner aware of requirements	• Product is "pulled" through the channel based on actual usage data from upstream Supply Chain partners	• Product is "pulled" through the channel using consumer demand from point of sale systems in near real time
1.2	Demand Collaboration	• Supply Chain partners do not work together to share real or anticipated demand	• Some discussions between key Supply Chain (2 or 3) partners to get better view of products and markets	• Key Supply Chain partners (2 or 3) maintain regular communication regarding products and sales statistics	• Most Supply Chain partners (3 or more) exchange product and sales data electronically, typically not real time	• Demand is conveyed upstream to partners in real time from point of sale • Partners jointly participate in analyzing demand
1.3	Sales & Operations Planning	• S&OP are developed internally by unrelated teams	• S&OP is an integrated cross-functional tool but does not include Supply Chain Partners	• Key Supply Chain Partners may be involved in S&OP as part of a Quarterly Business Review	• S&OP is a joint effort with all key Supply Chain Partners sharing data and plans	• S&OP is a collaborative process using on-line tools available to all Supply Chain Partners
1.4	Inventory Management Practice	• Purchase based solely on unit price, without regard to total cost (carrying costs, transportation, etc.)	• Inventory is managed independently and focus is on the cost of the total purchase	• Supply Chain Partners collaborate on requirements in an effort to reduce excess inventory.	• Supply Chain Partners jointly consider lead time reductions and postponement strategies	• Supply Chain Partners have implemented inventory visibility systems and processes to reduce excess inventory throughout the supply chain
2.0	**Standardization**					
2.1	Planning & Production Process Standardization	• No attempts are made to standardize processes	• Processes may be documented by the operator but may be	• Processes are documented and general process	• Processes used by the various Supply Chain partners are well	• Planning, production and stock management processes are defined and standardized

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		Poor Practice	Inadequate Practice	Common Practice	Good Practice	Best Practice
		internally or externally	considered "proprietary" and are not shared with Supply Chain Partners	understanding exists across the Supply Chain	understood by all, though not standardized	across the Supply Chain
2.2	Company Product Standards	• Products are non standard • No shared components	• Internal parties attempt to impose standardization of product components	• Internal parties agrees to standardize product components	• Actively look for opportunities to share components during new product development	• Products developed have a high proportion of shared parts from other product lines
2.3	Industry Product Standards	• No industry standards and products are considered to be "proprietary"	• Individual partners attempt to set their own standards outside of industry standards groups	• Partners make partial use of industry standards in development of new products	• Partners agree to standardize products based on standards set by outside groups	• SC Partners participate in industry standards bodies • Partners use industry standards in development and manufacture of products
2.4	Data Standards	• Data is considered to be proprietary and is not shared	• Individual Supply Chain Partners make information available to key partners but make no attempt to assist in data conversions	• Key Supply Chain Partners (2 or 3) jointly develop data mapping to convert each other's proprietary formats	• Key Supply Chain partners (2 or 3) use standardized data formats for information exchange.	• All Supply Chain Partners exchange product, availability and sales related data using global and / or industry standard data formats
3.0	**Waste**					
3.1	Waste	• Waste reduction is focused at the functional areas within the company	• Company analyzes internal processes to minimize waste	• Some Supply Chain partners are waste conscious but most focus on cost reduction and profit improvement	• Some Supply Chain Partners begin working together to eliminate waste	• All Supply Chain Partners understand end-to-end processes and work together to eliminating waste throughout the supply chain.

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3.2	Value Added Activities	• No clear distinction between value added and non-value added activities	• Individual Supply Chain aware of Value Add, but have not actively worked to eliminate non-value added activities	• Individual Supply Chain members focused on eliminating non-value adding operations within their own businesses	• Collaborative practices are being explored with Supply Chain suppliers or customers to eliminate non-value added activities	• Collaborative practices are actively being performed with both suppliers and customers to eliminate non-value added activities
4.0	**Culture**					
4.1	Continuous Improvement / Change Culture	• No continuous improvement programs in place	• Informal improvement projects in place	• The need to change / improvement has been identified and communicated to the workforce by top management	• Operational level "change leaders" have been identified and are being educated on the need to change and how to effect change	• Management has a well-developed published vision for all facilities and has operating objectives that fully support the vision • A continuous improvement culture exists across the supply chain
4.2	People	• Employees are viewed as being expendable • Most training is limited to on the job training	• Managers concerned about employees, but little institutional support or resources	• Managers actively work to manage employee turnover • Some support for employee development	• Resources made available for employee development • Continuous improvement culture in place in most departments	• Employees believe that they are a valued asset • Formal improvement processes in place
4.3	Teams	• Little of no use of process improvement teams • Teams work within a functional department only	• Some use of cross functional teams within a company	• Team members at individual Supply Chain member companies actively work together for internal processes only • "What's In It For Me"	• Cross company Supply Chain teams exist to develop an understanding of how process improvement practices can be implemented across supply chain partners	• Cross company Supply Chain teams actively proactively recognize opportunities and enact positive change for the benefit of the entire supply chain, even if it means less revenue on behalf of their individual company

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				(WIIFM) has been addressed at all levels and is		
4.4	Lean as a Management Philosophy	• Management does not believe that the concepts of lean are valid for their company	• Management is educated in Lean concepts and has made a decision to adopt the philosophy, but has not set a formal process in place	• Key personnel identified to champion the transition to lean practices • Some departments have implemented lean practices as a "pilot"	• Management has a written vision, mission and strategy regarding the Lean Supply Chain, and has communicated these ideas to the management team • Lean practices / teams permeating all levels in the company	• Supply Chain Partners actively cooperate to implement lean practices across the supply chain
4.5	Implementation of lean	• Implemented one or two tools of lean to learn more about impact on the company	• Some lean tools are implemented sporadically across the organization • No formal integrated implementation approach	• A formal integrated approach to implementation has been developed and is being rolled out • Awareness training is being performed at the operator level	• Entire product flow is integrated, product flows smoothly through the facility • SC Partner companies are becoming involved in joint Lean practices	• Lean production is standard procedure • Continuous improvement activities are driven by the operators with management support

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