

Procurement: Overview and focus on key activities

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Procurement and Supply Chain
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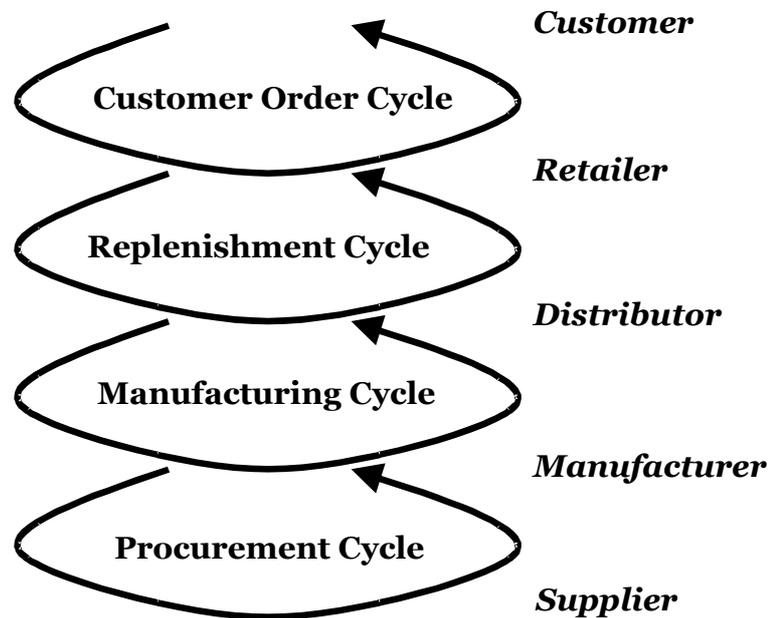


Agenda

- Cycle view of the supply chain: push vs. pull
- Procurement cycle and purchasing strategies
- Sales & Operations Planning + Demand Mgmt
- Category Mgmt + Logistics

Cycle View of a Supply Chain

- **Cycle view:** processes in a supply chain are divided into a series of cycles, each performed at the interfaces between two successive supply chain stages.



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Cycle View of a Supply Chain

- Each cycle occurs at the interface between two successive stages:
 - Customer order cycle (customer-retailer)
 - Replenishment cycle (retailer-distributor)
 - Manufacturing cycle (distributor-manufacturer)
 - Procurement cycle (manufacturer-supplier)
- Cycle view clearly specifies the roles and responsibilities of each member and the desired outcome of each process.

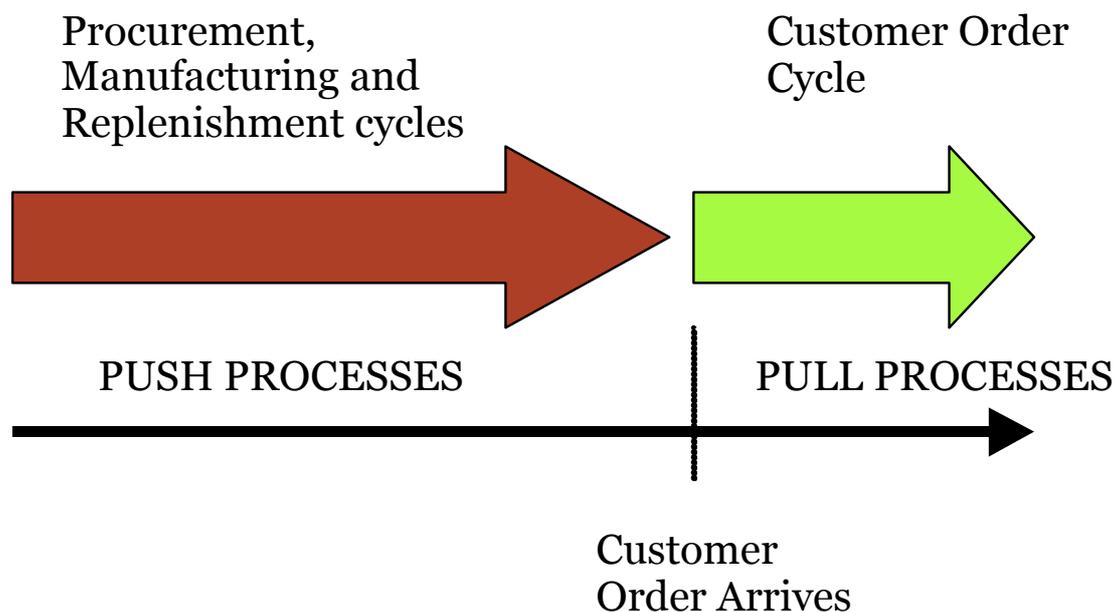
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Push/Pull View of Supply Chain Processes

- Supply chain processes fall into one of two categories depending on the timing of their execution relative to customer demand
- **Pull**: execution is initiated in response to a customer order (reactive processes). It operates in an uncertain environment (customer demand is not yet known)
- **Push**: execution is initiated in anticipation of customer orders (speculative or forecasted processes). Here customer demand is known
- Push/pull boundary separates push processes from pull processes. It is a firm's choice to select the position of the push/pull boundary
- The relative proportion of push and pull processes can have an impact on supply chain performance

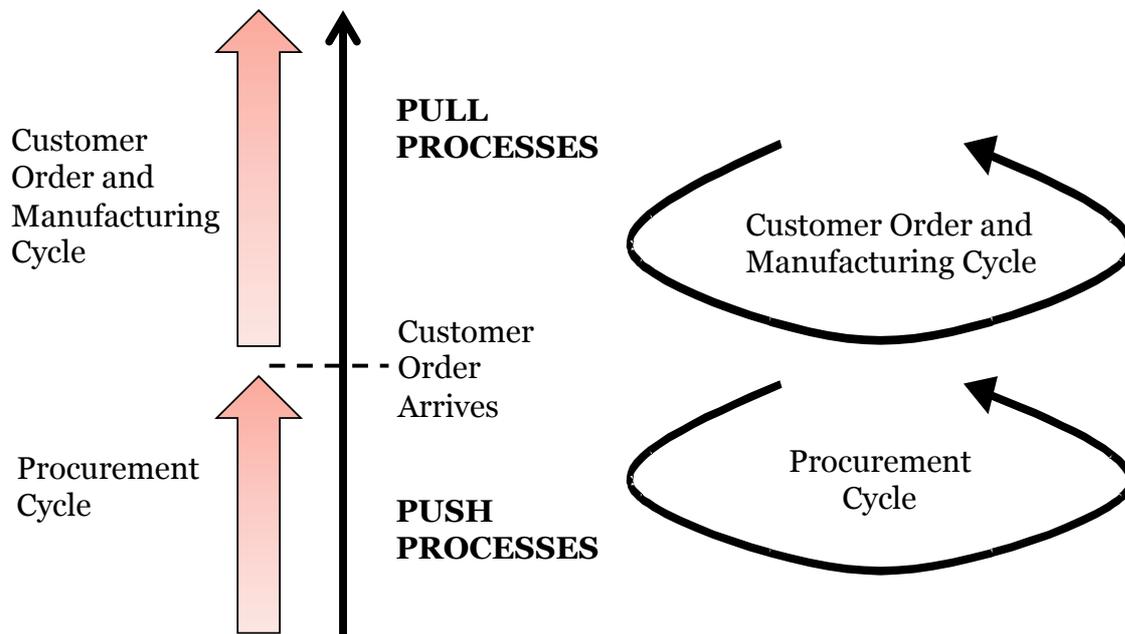
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Push/Pull View of Supply Chains



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Push/Pull processes for Dell (customized PCs)



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The traditional view: Push-oriented Strategies

- Classical manufacturing supply chain strategy
- Manufacturing forecasts are long-range
 - Orders from retailers' warehouses
- Longer response time to react to marketplace changes
 - Unable to meet changing demand patterns
 - Supply chain inventory becomes obsolete as demand for certain products disappears
- Increased variability (Bullwhip effect) leading to:
 - Large inventory safety stocks
 - Larger and more variably sized production batches
 - Unacceptable service levels
 - Inventory obsolescence
- Inefficient use of production facilities (factories)
 - How is demand determined? Peak? Average?
 - How is transportation capacity determined?
- Examples: Auto industry, large appliances, others?



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The “modern” view: Pull-oriented Strategies

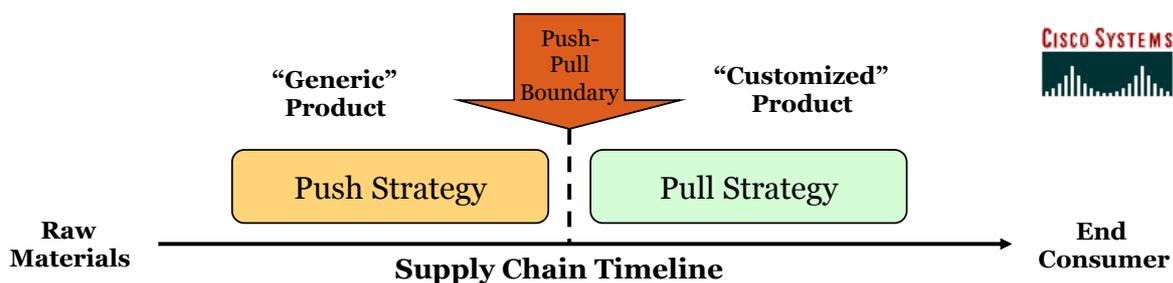
- Production and distribution are demand-driven
 - Coordinated with true customer demand
- None or little inventory held
 - Only in response to specific orders
- Fast information flow mechanisms
 - Point-of-Sale (POS) data
- Decreased lead times for customized products (increased for standard)
- Decreased retailer inventory
- Decreased variability in the supply chain and especially at manufacturers
- Decreased manufacturer inventory
- More efficient use of resources
- More difficult to take advantage of scale opportunities
- Examples: Dell, Amazon



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The Hybrid Solution: Push/Pull Strategies

- Hybrid of “push” and “pull” strategies to overcome disadvantages of each
- Early stages of product assembly are done in a “push” manner
 - Partial assembly of product based on aggregate demand forecasts (which are more accurate than individual product demand forecasts)
 - Uncertainty is reduced so safety stock inventory is lower
- Final product assembly is done based on customer demand for specific product configurations
- Supply chain timeline determines “push-pull boundary”



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Procurement and purchasing

- **Procurement:**

All activities that are required in order to get the product from the supplier to its final destination. It is based on “total cost of ownership-thinking”.

Definition:

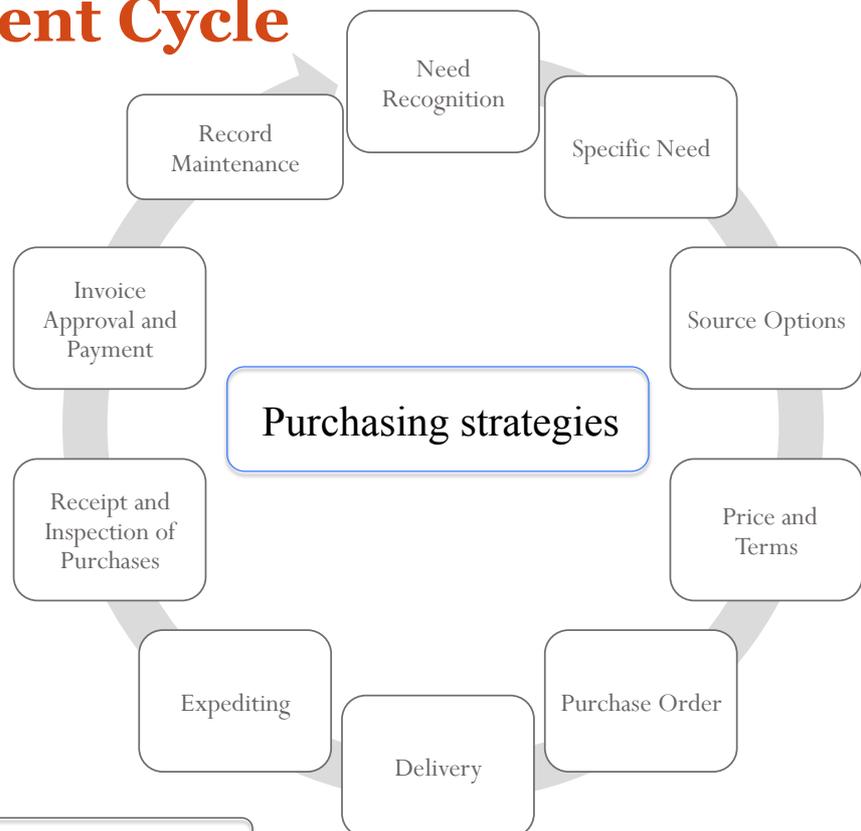
- “Managing the company’s external resources in such a way that the supply of
- all goods, services, capabilities and knowledge which are necessary for
- running, maintaining and managing the company’s primary and support
- activities is secured at the most favorable conditions covering the materials, information and money flows up to the point of consumption”.

- **Purchasing:**

All activities for which the company receives an invoice from outside parties.

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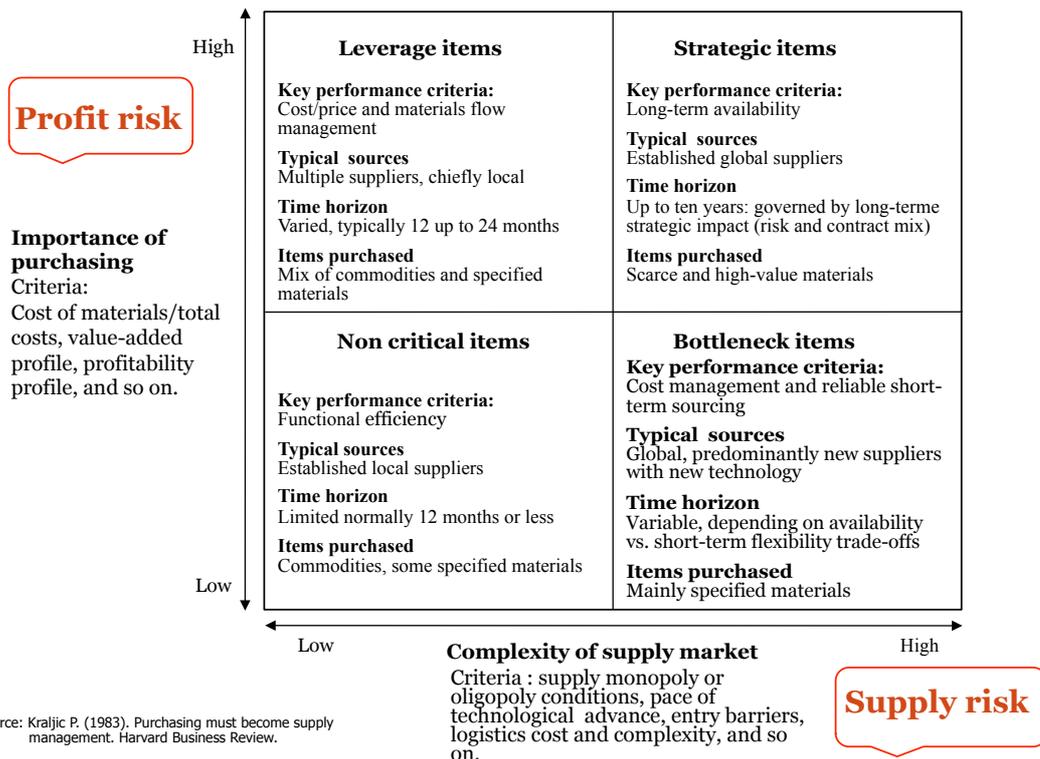
Procurement Cycle



Purchasing strategies

- Purchasing strategies can be defined based on two major variables:
 - Purchasing's impact on the bottom line to the company = profit risk.
 - Complexity of the supply market = supply risk.
- Based on these two variables, companies can build up and manage differently a portfolio of purchasing strategies

Procurement strategies: Kraljic matrix



Procurement strategies: Leverage items

Key performance criteria:

Cost/price and materials flow management

Typical sources

Multiple suppliers, chiefly local

Time horizon

Varied, typically 12 up to 24 months

Items purchased

Mix of commodities and specified materials

Source: Kraljic P. (1983). Purchasing must become supply management. Harvard Business Review.

Procurement strategies: Strategic items

Key performance criteria:

Long-term availability

Typical sources

Established global suppliers

Time horizon

Up to ten years: governed by long-term strategic impact (risk and contract mix)

Items purchased

Scarce and or high-value materials

Source: Kraljic P. (1983). Purchasing must become supply management. Harvard Business Review.

Procurement strategies: Non critical items

Key performance criteria:

Functional efficiency

Typical sources

Established local suppliers

Time horizon

Limited normally 12 months or less

Items purchased

Commodities, some specified

Source: Kraljic P. (1983). Purchasing must become supply management. Harvard Business Review.

Procurement strategies: Bottleneck items

Key performance criteria:

Cost management and reliable short-term sourcing

Typical sources

Global, predominantly new suppliers with new technology

Time horizon

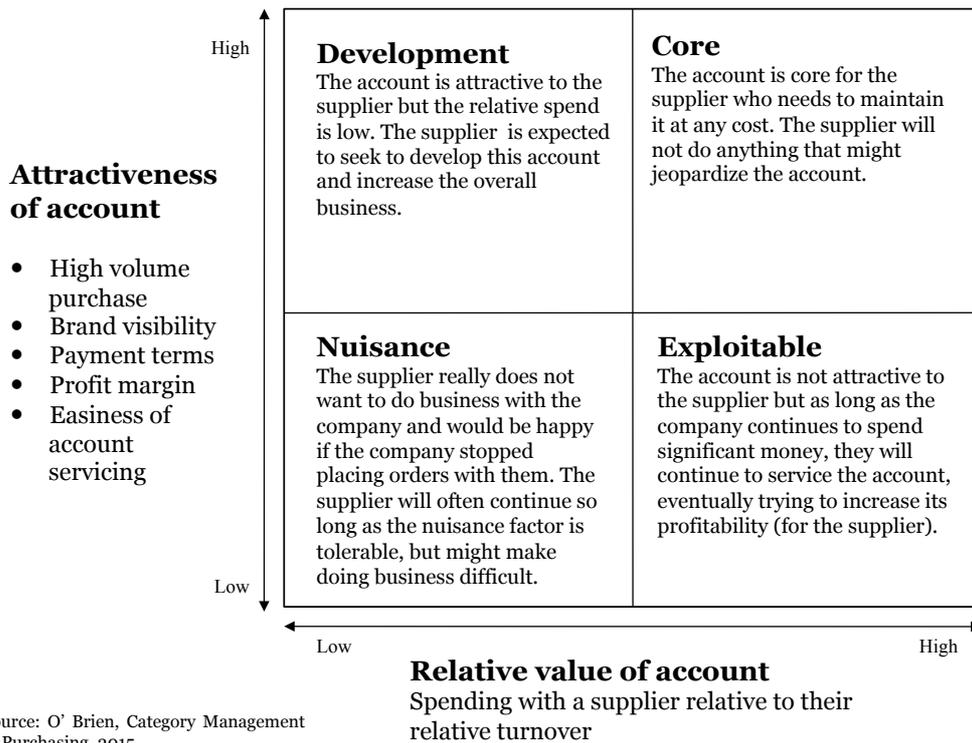
Variable, depending on availability vs. short-term flexibility trade-offs

Items purchased

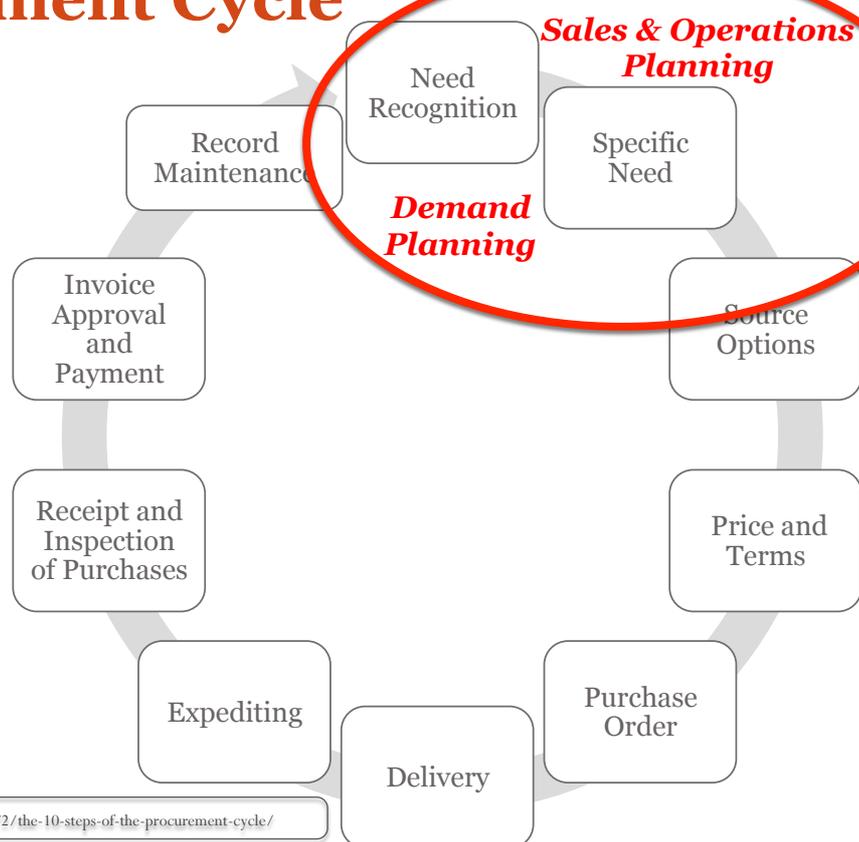
Mainly specified materials

Source: Kraljic P. (1983). Purchasing must become supply management. Harvard Business Review.

Procurement strategies: Suppliers preferences



Procurement Cycle



Sales and Operations Planning

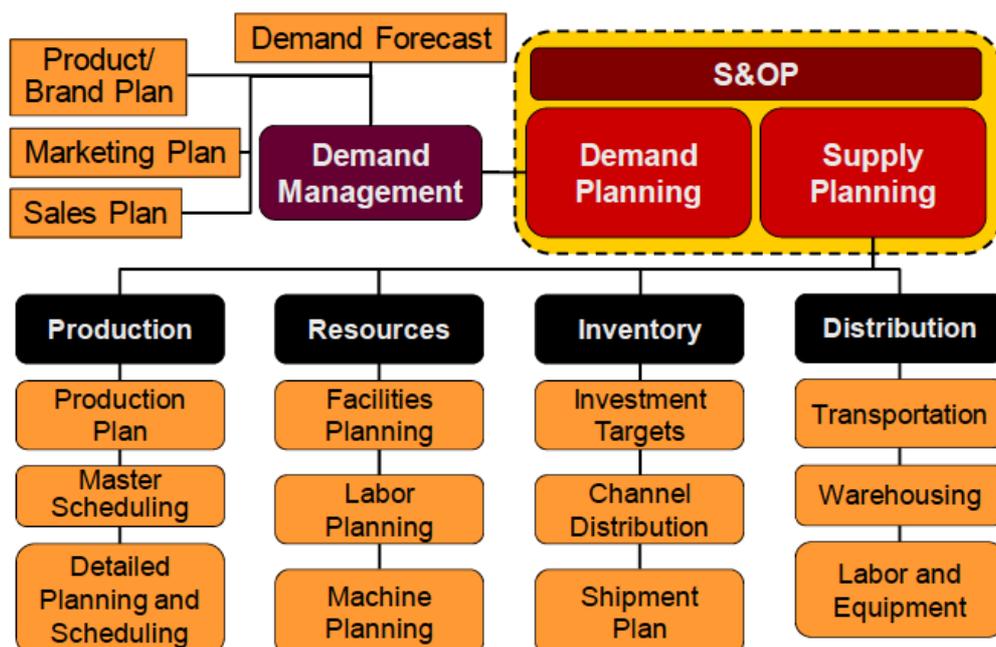
- **Sales and Operations Planning (S&OP)** is a process to develop tactical plans that provide management the ability to strategically direct its businesses to achieve competitive advantage on a continuous basis by integrating customer-focused marketing plans for new and existing products with the management of the supply chain.

The process brings together all the plans for the business (sales, marketing, development, manufacturing, sourcing, and financial) into one integrated set of plans.

Source: APICS Dictionary

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Sales and Operations Planning



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S&OP objectives

- S&OP supports and measures the progress of the entire organization in meeting the enterprise's business plan
- S&OP ensures that the strategic plans developed in the business plan are realistic and can be successfully executed before they are passed to tactical planning
- S&OP enables the organization to successfully manage marketplace change
- S&OP provides for the effective management of finished goods inventories and order backlog to support customer service
- S&OP reporting mechanisms enable the S&OP planning teams to identify when actual performance has deviated from the plan
- S&OP process enables the entire management team to understand the challenges confronting the organization and to act upon them in proper priority or focus.

Source: APICS Dictionary

Sales and Operations Planning

- S&OP has to be supported by an enterprise IT system, namely an ERP in order to support and measure the progress of the entire organization in meeting the enterprise's business plan



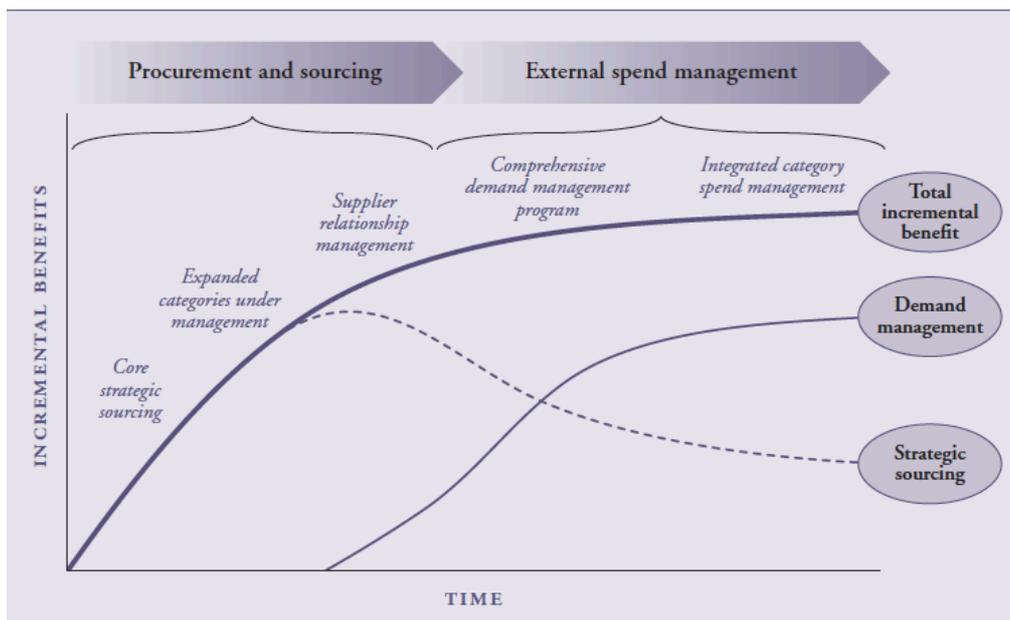
S&OP benefits

- Establishes operational plans consistent with the business plan
- Continually updates the production, financial, and sales plan
- Provides for cross-functional planning
- Establishes regular meetings with senior executives to resolve demand versus supply trade-offs
- Checks availability of resources to validate the production plan
- Increases teamwork and collaborative skills

Source: APICS Dictionary

Demand Management

Procurement start with a focus on demand ...



Effective Demand Management

PROVIDES DATA TO MANAGE COSTS

- Increases transparent spending
- Elevates the cost implications of individual actions
- Provides a mechanism for monitoring costs and usage

REDUCES COST STRUCTURE

- Reduces spend at source
- Balances spend against the true needs of the business
- Realizes bottom-line savings

INSTILLS A CULTURE OF COST CONTROL

- Eliminates cost creep
- Shines the light on undesirable actions and celebrates successes

DRIVES A CONSISTENT POLICY

- Raises visibility throughout the organization
- Ensures business-appropriate decisions are right for the entire organization (for example, reuse office furniture or PCs)

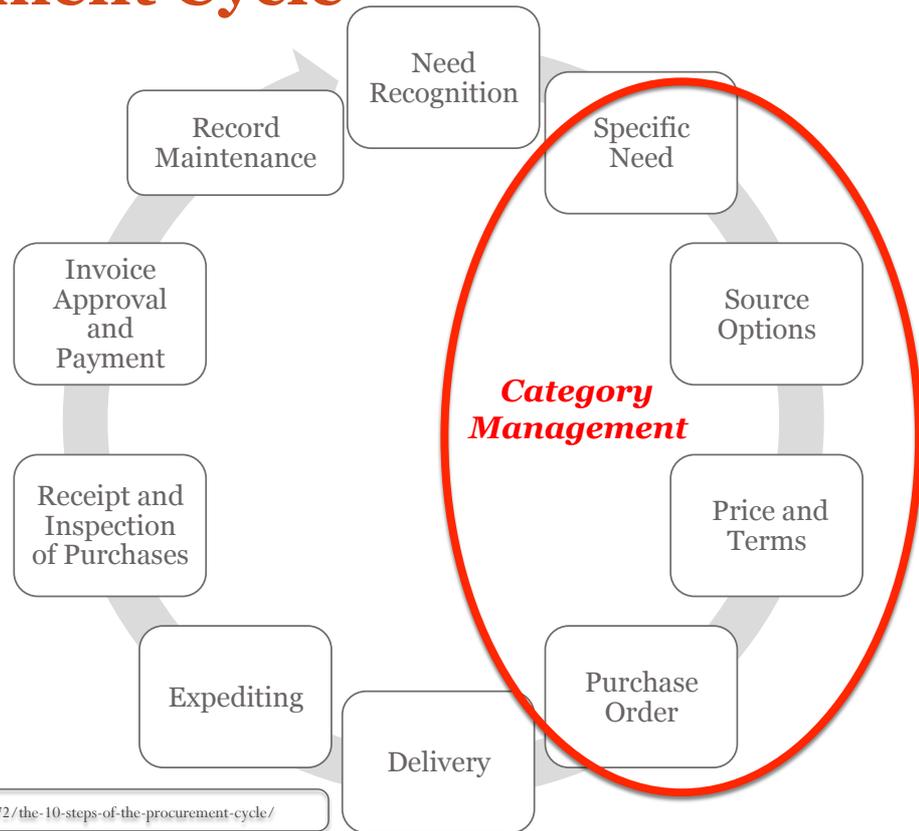
Companies can choose from variety methods to reduce demand

...

This requires a change in the processes as well as a change in the culture

	DEMAND REDUCTION LEVERS	TRAVEL EXAMPLES	TECHNOLOGY EXAMPLES
<p><i>Aggressive approach; significant savings</i></p> <p><i>Conservative approach; moderate savings</i></p>	Eliminate demand	<ul style="list-style-type: none"> • Cancel non-essential meetings 	<ul style="list-style-type: none"> • Eliminate purchases of non-essential PC peripherals
	Reduce quantity	<ul style="list-style-type: none"> • Restrict travel for all nonessential internal meetings 	<ul style="list-style-type: none"> • Reduce purchases of network servers through consolidation
	Simplify specifications	<ul style="list-style-type: none"> • Establish market-based maximum hotel rate for frequent destinations and restrict use of luxury hotels 	<ul style="list-style-type: none"> • Create distinct user tiers with hardware and software guidelines and restrict variations
	Reduce frequency	<ul style="list-style-type: none"> • Reduce number of internal meetings requiring travel 	<ul style="list-style-type: none"> • Eliminate automatic purchase of monitor with each new PC
	Encourage substitution	<ul style="list-style-type: none"> • Encourage use of video-conferencing as an alternative to in-person meetings 	<ul style="list-style-type: none"> • Shift users who do not need to be mobile from a laptop to a desktop
	Impose tighter process and tracking	<ul style="list-style-type: none"> • Enforce non-reimbursement for travel booked outside of preferred agency 	<ul style="list-style-type: none"> • Elevate the approval level required for technology purchases
	Increase cost awareness and tighten policies	<ul style="list-style-type: none"> • Publish cost differences incurred by not booking 14 days in advance 	<ul style="list-style-type: none"> • Raise awareness of hardware and maintenance costs within the business units

Procurement Cycle



Category Management definition

The practice of segmenting the main areas of organizational spend on bought-in goods and services into discrete groups of products and services according to the function of those goods or services and most importantly, to mirror how individual marketplaces are organized.

Using this category segmentation, organizations work cross-functionally on individual categories, examining the entire category spend, how the organization uses the products or services within the category, the marketplace and individual suppliers.

Source: O' Brien, Category Management in Purchasing, 2015

Category Management Approach

Category management requires a segmentation of third-party spend into categories that can be worked on individually by a cross-functional team with the aim of identifying and implementing the optimum sourcing strategy for that category:

1. Identifying spend;
2. Directing resources only on addressable spend;
3. Directing resources on the categories where there is a worthwhile opportunity;
4. Identifying market boundaries so categories become market facing;
5. The most appropriate level to work at.

Potential Benefits

Cost reduction

10-20 per cent reduction in the price of bought in goods and services

Improved value and effectiveness

- Improved efficiency
- Reduced waste
- Additional value (more bang for the buck)
- Sustainable results

Innovation

- Improved value proposition to our customer using supply base innovation
- Process improvements
- Synergies from collaboration

Potential Benefits

Reduced supply chain risk

- Greater security of supply
- Reduced risk of brand damage (eg through poor practice upstream in the supply chain)
- Reduced risk of loss through increased supplier and supply chain understanding

Competitive advantage, differentiation and improved offering to customers

- Improved value proposition to our customer
- Increased profit margin
- Differentiation or offer or delivery mechanism

Total spend under management

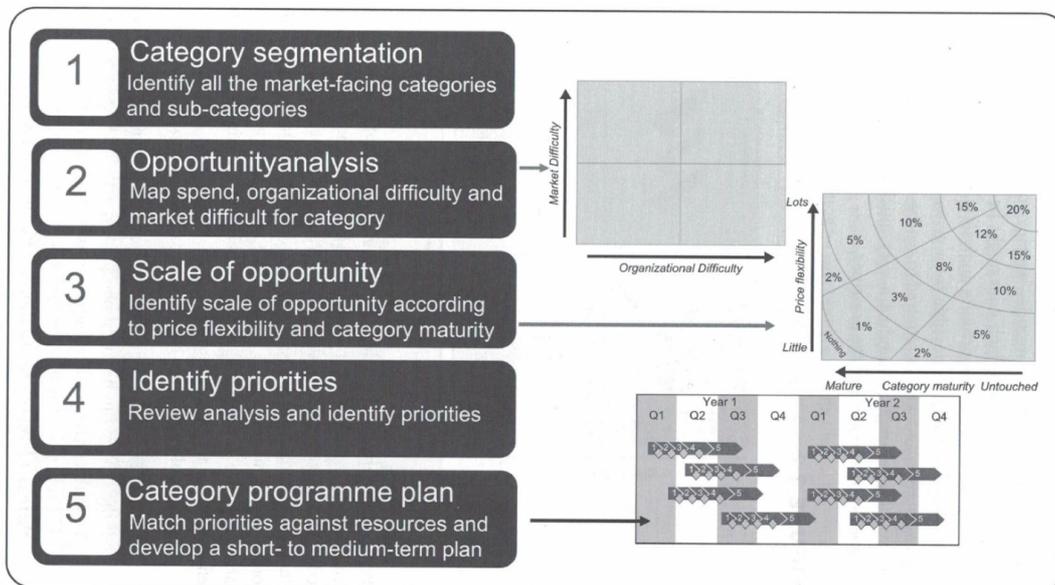
- Greater transparency
- Improved accuracy of spend breakdown
- Ability to prioritize resources
- Better framework agreements through improved market understanding

Scale of potential benefits

The scale of potential benefits will depend upon:

1. Category opportunity – determined according to market difficulty, degree of ‘added value’ or scope for price flexibility and how mature or immature a category is.
2. Quality of deployment – the effectiveness of category management including capability, process, available resources and governance.
3. Procurement maturity – the degree to which procurement has evolved in the organization and is effecting planned and systematic supply base interventions that make a strategic contribution to the business.
4. Organizational readiness – the degree of alignment, participation and buy-in of the wider organization to the cause of procurement, and the ability to drive change in the organization in support of implementing new sourcing strategies.

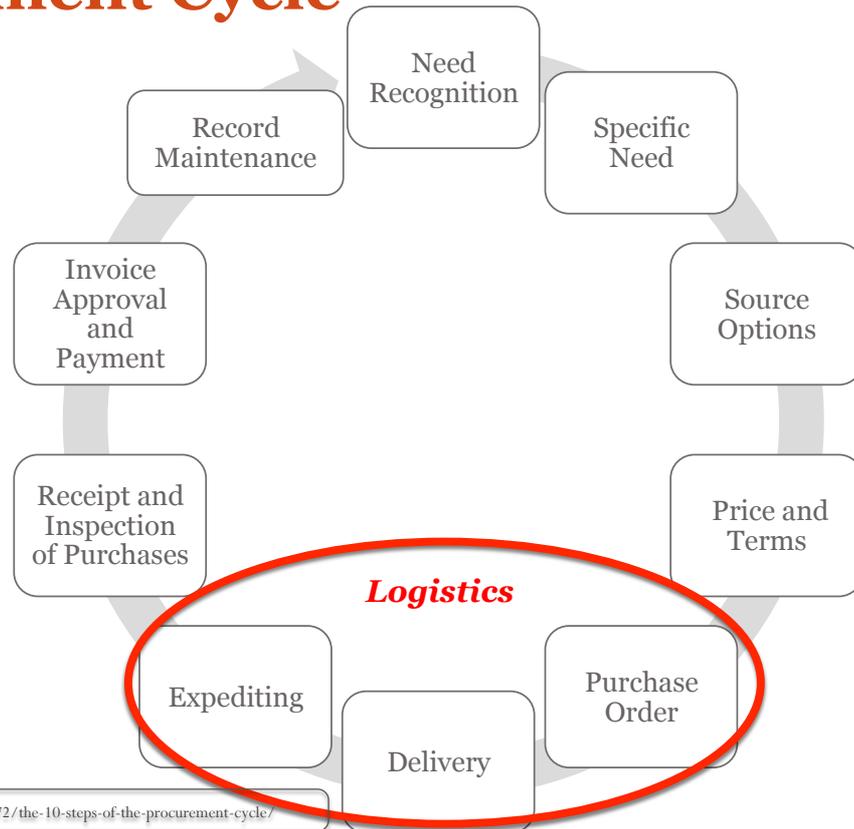
Category Management Program



Category Mmgt and Global Sourcing (Efes Beer case)

- **CATEGORY & INDUSTRY PROFILE**
 - **Key Insight:** Information on the category (Key geographical differences, top opportunities/quick wins/sources of value)
 - **Market Description:** A general overview of the industry with the market characteristic definition
 - **Key Suppliers:** List of Suppliers for this Category (With all the relevant information)
 - **Market Statistics and Trends:** Definition of the Market Technology, Market Growth, Market Dynamics, Market Specialties, Category Specificities for the high value products...
 - **Industry Drivers and Levers:** Value Chain Analysis (if it is possible), Industry Cost Structure Breakdown
 - **Five Forces Analysis:** Entry barriers analysis, Availability of Substitutes analysis, Bargaining Power of Supplier/Buyer analysis and Industry Rivalry analysis
 - **External Constraints:** Description of the restriction such as Import restrictions or some others Government restriction
- **CATEGORY STRATEGY**
 - **Sourcing Strategy Definition:** Define which can be the correct strategy to undertake (Demand Aggregation, Volume Leverage, Supplier Rationalization Product Rationalization / Standardization, Competitive Tender, eAuction, Supplier & Contract Management, eProcurement, Demand Management or others)
- **BUSINESS PLAN**
 - **Implementation plan for the category:** Define countries involved, define time line for the main activities of the sourcing process
 - **Potential Benefits for the Category:** Description of the Value-added improvements, How to achieve potential benefits, *Savings methodology* and *Benchmark pricing*

Procurement Cycle



Definition of Logistics

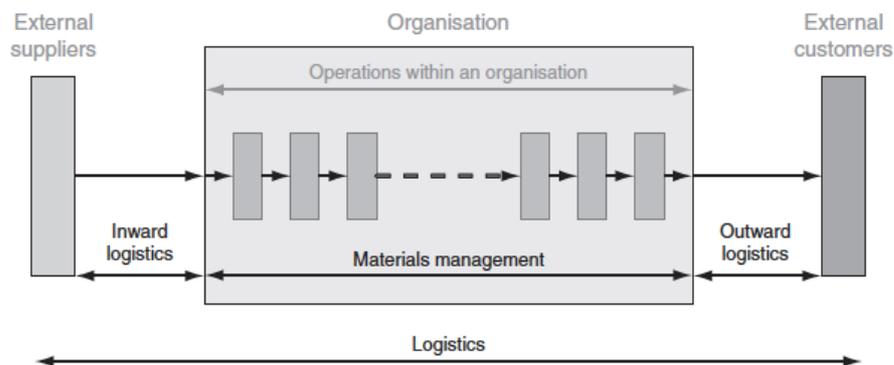
- The Council of Logistics Management has defined Logistics activities as :
“that part of the supply chain process that **plans, implements, and controls** the **efficient, effective** flow & storage of **goods, services, & related information** from the point of origin to the point of consumption to meet customer’s requirements.” (Johnson, Wood, Wardlow & Murphy, 1998.)
- Logistics managers ensure that the **right product**, in the **right quantity**, in the **right condition**, is delivered to the **right customer** at the **right place**, at the **right time**, at the **right cost**.

Main phases of logistics

Inbound logistics: These include the movement of raw materials, and components for processing from suppliers.

Process logistics: These are the operations, which are directly related to processing. These include activities like storage and movement of raw materials, components within the manufacturing premises.

Outbound logistics: These are the operations, which follow the production process. These include activities like warehousing, transportation, and inventory management of finished goods.



Logistics ... suppliers and customers gaps

1. **space gaps**, with suppliers physically separate from customers
2. **time gaps**, when there is a difference between the time a product become available and the time when customers want to buy it
3. **quantity gap**, between the amounts available from suppliers and the demand from customers
4. **variety gap**, when customers want a wider variety of products than is available from a single supplier
5. **information gap**, when customers do not know about the availability or source of products, and suppliers do not know about potential customers

Logistical Drivers of Supply Chain Performance

- Facilities
 - places where inventory is stored, assembled, or fabricated
 - two major types: production sites and storage sites
- Inventory
 - raw materials, work in process, finished goods within a supply chain
 - they exploit economies of scale that may exist during production and distribution
- Transportation
 - moving inventory from point to point in a supply chain
 - combinations of transportation modes and routes

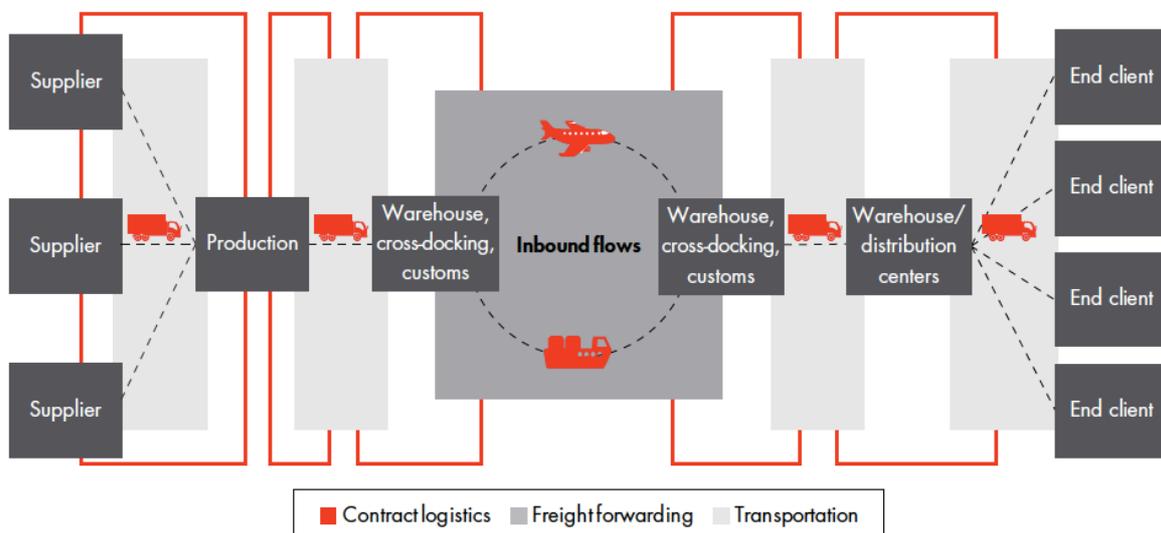
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Challenges and winning models in logistics

BAIN & COMPANY 

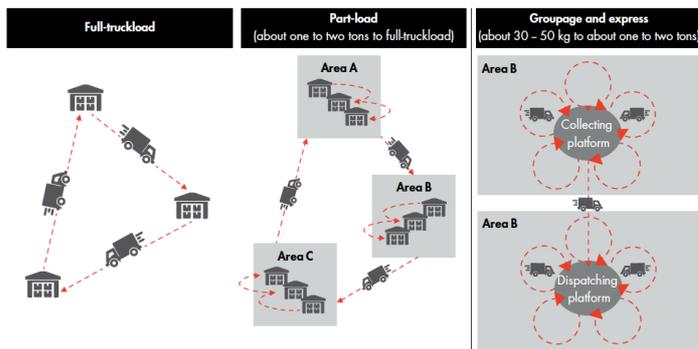
Outsourced logistics activities commonly fall into three types of services: **contract logistics**, **freight forwarding** and **transportation**.

Customers' supply chain and logistics segments



Challenges and winning models in logistics

BAIN & COMPANY 



The groupage business model employs a network of depots, where parcels are collected and distributed for multiple customers

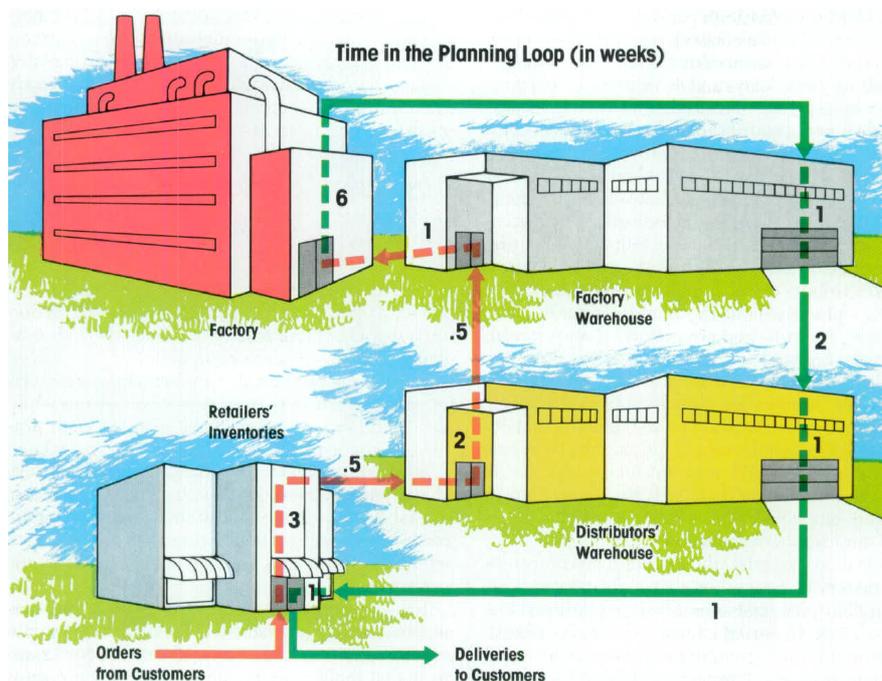
Contract logistics suppliers have extended their traditional core into extra value-added services



Contract logistics main activities along customers' supply chain				
Production (on client site)	Inbound flows	"Roof" logistics/distribution centers	Outbound	Aftermarket (after sales, reverse)
<ul style="list-style-type: none"> Warehousing Picking, packing, labeling Synchronous logistics (vendor inventory management) 	<ul style="list-style-type: none"> Flows management Freighting (road, rail) 	<ul style="list-style-type: none"> Cross-docking Synchronous logistics Warehousing (standard and dedicated to specific sector requirements) Picking, packing, labeling 	<ul style="list-style-type: none"> Flows management Freighting (road, rail) 	<ul style="list-style-type: none"> Transport (collection, consolidation, return) Warehousing
<ul style="list-style-type: none"> Kitting Light assembly Packaging Co-packing Quality control 	<ul style="list-style-type: none"> Customs 	<ul style="list-style-type: none"> Kitting Light assembly Packaging Co-packing Preconfiguration 	<ul style="list-style-type: none"> Customs Payment services 	<ul style="list-style-type: none"> Installation <ul style="list-style-type: none"> After-sales services Repairing Customer management Scrapping
<p> ■ Warehousing activities ■ Postponed manufacturing ■ Other client-related services </p>				

Source: Bain & Company

Time as source of competitive advantage



Supply chain/logistics processes need to be shortened

Source: Stalk, 1998

Time-based initiatives

Opportunities to add value:

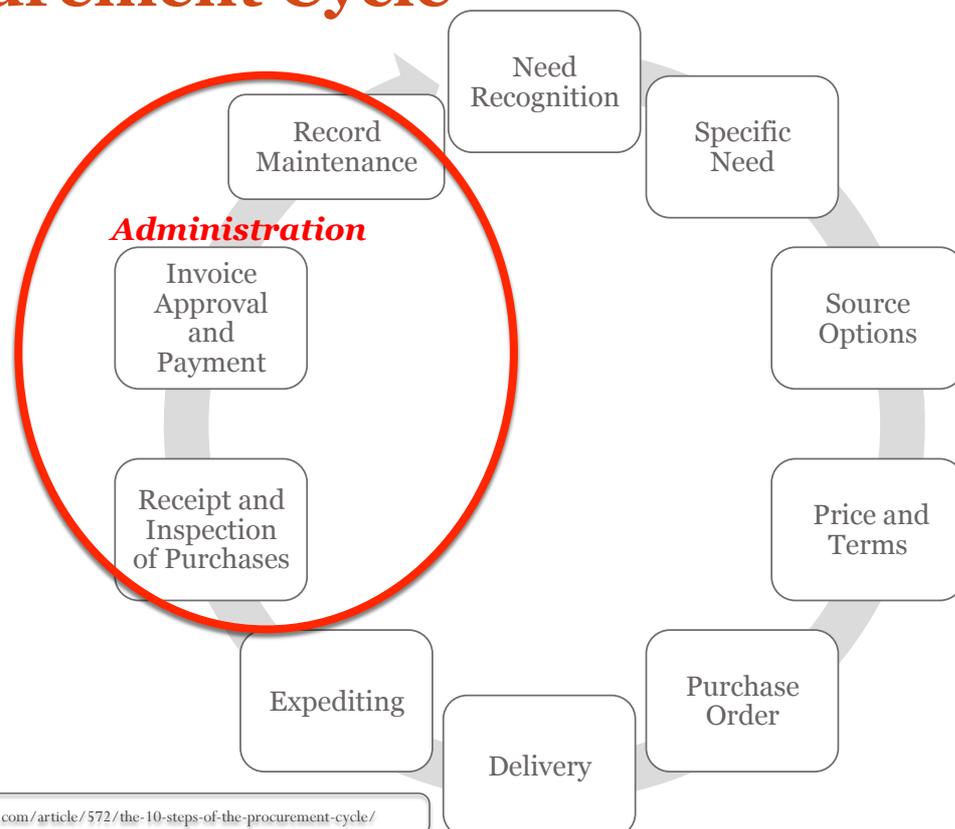
- increase responsiveness to customer needs
- manage increased variety
- increase product innovation
- improve return on new products
- reducing risk by relying less on forecasts

Opportunities to reduce cost:

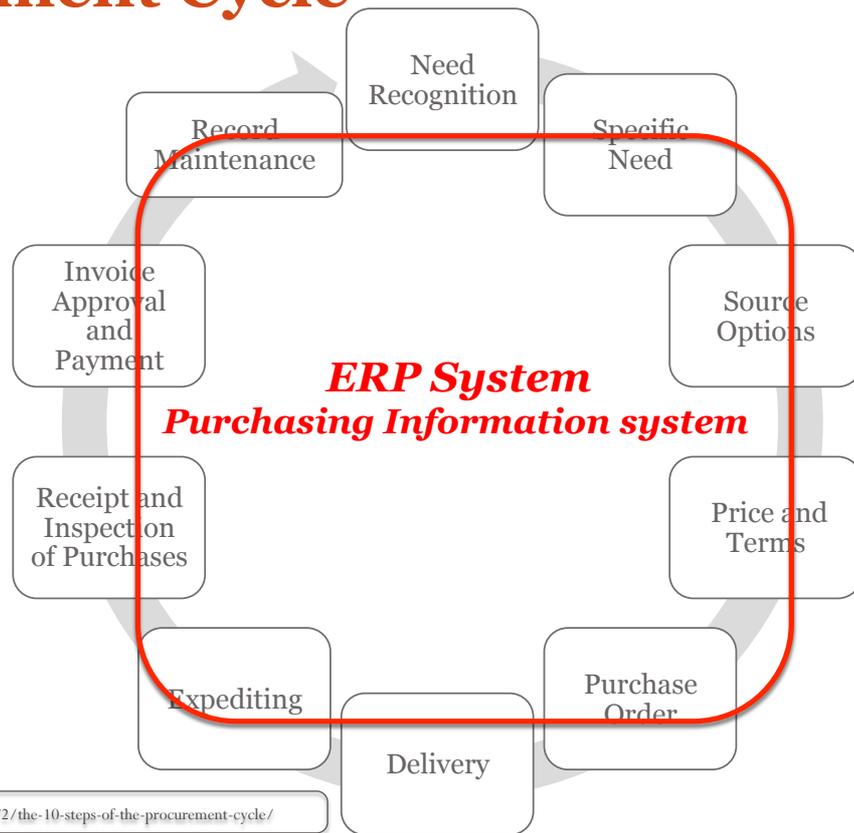
- reduce the need for working capital
- reduce the need for plant and equipment capital
- reduce development costs
- reduce quality costs

In most case time-based initiatives are grounded on a BPM approach

Procurement Cycle

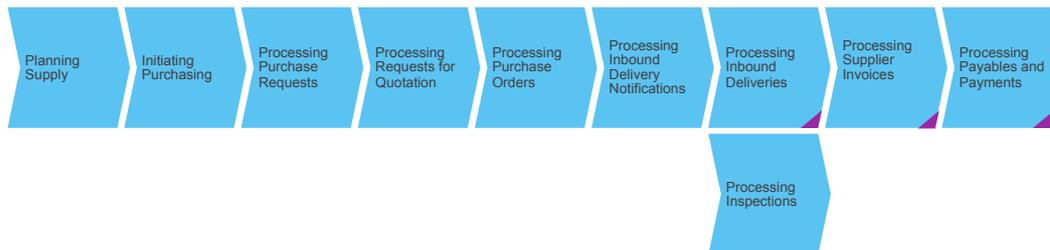


Procurement Cycle



www.businessdictionary.com/article/572/the-10-steps-of-the-procurement-cycle/

Processes: Procure to Pay (scenario)



Across the whole procurement process there is a great need for data

Scenario Explorer

Scenario/Processes

- Business Value
- Scenario Flow
- Further Information

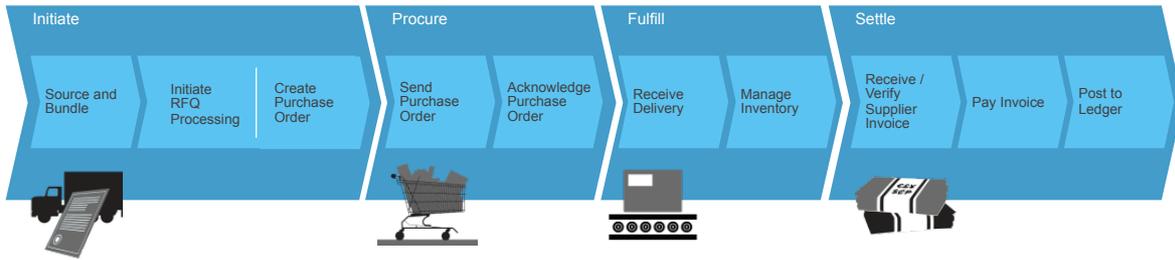
Scenario Description

The **Procure-to-Pay (Stock)** scenario enables you to purchase stock products, including those based on product specifications, based on a requirement that can be generated from a planning system, such as a Materials Requirements Planning (MRP) system. It covers all stages of the procurement process, from demand planning and creation of a purchase order, through automatic or manual assignment of sources of supply, sending the purchase order to a supplier, to goods and services receipt, invoice verification, and payment.

The following business roles are involved in this scenario:



Processes: Procure to Pay (business value)



Scenario Explorer

Scenario/Processes

Business Value

Scenario Flow

Further Information

Overview

For companies seeking greater sourcing effectiveness and procurement efficiency, this process provides complete transparency in order to keep customer commitments while balancing stock levels with demand.

You can grow profits by building an integrated, demand-driven supply chain.

SAP helps efficiently manage the procure-to-pay process: From assigning the source of supply, procurement management, logistics through to matching shipments with invoices.

Key Benefits

- Automated sourcing and purchase order creation, which can be tailored to your business
- Automated Invoice verification where user interaction is only for exception handling
- Workload monitoring and reporting that drives process transparency supported by spend analytics
- Alerts and exception handling for fast handling of non-standard requests
- Integrated SAP Interactive Forms software (by Adobe®); collaboration support
- Payments to suppliers are highly automated to achieve the highest possible payment discounts taking the current liquidity situation into consideration
- Built-in analytics that enable the purchasing department to supervise the full supplier life cycle by monitoring the supplier base

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Purchasing Information System

- Purchasing information system has to be aligned with:
 - Sales & Distribution Information System
 - Inventory Information System

Often it is linked/included to the overall logistics activities

