Objectives for Supply Chain Integration in a Recession

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Agenda

1. The Business Reality and Supply Chain Imperative
2. Research With Global Supply Chain Organizations
3. Leveraging Supply Chain Analytics in Practice
4. Q&A

Economic Volatility is the Main Theme of Today’s Business Environment

The global recession will result in -1% real GDP 2009 growth with -2% US growth and the “Rest of World” slightly positive.

Supply chains continue to become more global and complex...
The Business Reality and the Supply Chain Imperative

The unprecedented global financial crisis is straining most supply chains. Good Business Intelligence (BI) is critical in order to overcome reactionary execution. Optimizing the use of cash throughout the supply chain is a critical need. The fastest path to freeing up cash is through inventory reduction.

Many Global Supply Chains have evolved to Phase 3: Proactive Execution Matters

- Our experience shows that most global companies are in Phase 3 of their evolution.
- Global operational models (process, tools and infrastructure) have not evolved in sync with the growing complexity of global business models.
- The growing competition between new and emerging technology firms adds a sense of urgency to the need for key players to upgrade their operational model with greater emphasis on superior planning and execution.
- Transforming the supply chain to address the requirements of this new phase is the new competitive frontier.

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Key Attributes of Today’s Supply Chains

We Must be Smarter

The Smarter Supply Chain

Instrumented, Interconnected, Intelligent

The smarter supply chain has three new characteristics. Firms across the globe are beginning to see the benefits of building a new vision of supply chain excellence.

Instrumented
- Use of sensors, actuators, RFID, & smart devices to automate transactions: inventory location, shelf-level replenishment detection, transportation locations & bottlenecks

Interconnected
- Supports optimized performance & transparency. Trace FCO across the entire supply chain

Intelligent
- Sense-and-respond demand/supply signals allow “predict and act”

Cost Containment
- Suppliers and customers speak the same “profit and loss” language

Supply Chain Visibility
- Real-time, not just periodic data collection & transparency from POS to manufacturing to raw material

Risk Management
- Decision support integrated with operational performance
- Simulation models to evaluate trade-offs of cost, time, quality, service, carbon and other criteria

Globalization
- Increasing customer demands
- 55%
- 70%
- 60%
- 56%
- 43%

Source: 2009 IBM Global CSCO Study: 5 Major CSCO Challenges

The 3 Primary Capabilities of Smarter Supply Chains

Automated Transactions & Smart Devices
- Use of sensors, actuators, RFID, & smart devices to automate transactions: inventory location, shelf-level replenishment detection, transportation locations & bottlenecks

Optimized Flows
- Use of sensors, actuators, RFID, & smart devices to optimize supply chain performance

Collaborative Decision-making
- Supplier intelligence: real-time data collection & transparency
- Sense-and-respond demand/supply signals allow “predict and act”

Integrated Enterprise Systems
- ERP to ERP to ERP system integration across the network

Standardized Data and Processes
- Collaborative decision-making through decision support and business intelligence - starting with the customer
- C-Suite management programs for integrated financial controls with operational performance - monitored and measured

Simulation Models
- Networked planning/execution with optimized forecasts & decision support
- Probability-based risk assessment & predictive analysis

Industry out-performers recognize and pursue information-led transformation much more than under-performers

8X
- Industry out-performers are 8X more likely to pursue information-led transformation at an enterprise level than industry under-performers
- Roughly half of organizations are pursuing information-led transformation at a functional level (e.g., Supply Chain, Finance, Sales)

50%
- Under-performers
- Over-performers

Analyzing information with a new viewpoint leads to successful operational decisions

Key Financial and Operational Metrics (FY 2008)

- Some leading high tech companies show how combining SCM and sound financial management information can be a powerful success enabler
  - Apple, for instance, has an interesting combination of indicators:
    - Negative Cash-to-Cash Cycle Time (-32.87)
    - Significant supply chain collaboration as proven by the amount (1084%) of Inventory Financed by Vendors
- More than ever, today’s recessionary environment puts greater emphasis on the need for a tighter integration between SCM and FM

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Supply Chain Managers must adopt new ways of working to improve speed to insight and speed to impact
Recommendation # 1:
Performance Management Analytics: Understand the interactions between your key variables

A few years ago, a high-tech firm asked a simple question: “How long will my hard drive inventory last if we were to stop all production?”

John D.C. Little
Institute Professor

Inventory
Lead-Time
Throughput

Suppliers
Customers
Lead Time
Raw Materials
Manufacturing
Central Warehouse
Regional Warehouse(s)
Local Warehouse(s)
Retailers

The Answer

Recommendation # 2:
Link Supply chain and Financial Analytics: Understand your supply chain cost breakdown

Normal
Recession

Profit
Supply Chain Costs
Marketing Costs
Manufacturing Costs

Profit
Supply Chain Costs
Marketing Costs
Manufacturing Costs

Revenue
Slow your profit erosion using various cost reduction initiatives

Recommendation # 3:
Utilize Customer / Demand Analytics: Better match your supply with your demand

Æ And further leverage advanced analytics using inventory optimization to reduce inventory and free up working capital by better matching supply with demand consumption patterns

Market / Demand Side
Supply Side

Demand Created

Quick ROI Idea – Inventory Optimization

What is the idea?
- Quickly assess current inventory situation and devise a plan with a goal of simultaneously increasing product availability / service levels while reducing inventory levels.

Why does it matter to many companies?
- The recession requires companies to capture every available demand opportunity while optimizing the use of cash to fund operations.
- Having the right products readily available is critical to capturing the demand while keeping inventory levels low.

How to go about implementing it
- Inventory positioning and management strategies by SKU
- Optimized inventory and replenishment policies
- Increased inventory turns
- Higher service level, fill rate or similar fulfillment metrics
- Reduced distribution and procurement expenses

Impacted Operational Metrics/Decisions
- Return on investment

Typical ROI
- Reduction in inventory levels without negative impact on service levels

Quick ROI Idea – Inventory Optimization
Case Study – Industrial Products Company

Facing a chaotic and very costly inventory situation, a leading industrial company secured our help for a quick MRO assessment project. Our effort lasted 4 weeks and consisted in assessing their MRO process, conducting a benchmarking study and developing an improvement roadmap (6 months) based on an achievable and compelling business case.

Background

Roadmap Creation
- Scenario Workshops & Analysis
- Transformation
- Value Prioritization
- Benchmarking & Analysis
- Operations Baseline

MRO Strategy
- Inventory Reduction
- Inventory Optimization
- Performance Measurement

Typical ROI
- Assessment (4 – 6 Weeks)

Quick ROI Idea – SKU Rationalization

What is the idea?
- Over the years, companies have grown by acquisition or have not enforced discipline in product management to manage their product portfolio or SKUs to maximize profitability and lower complexity.

Why does it matter to many companies?
- Complex product portfolios can lead to lower margins, excess inventory or wasted resources, including the sales and supply chain. Without processes and business rules in place, it can get worse over time and become a recurring issue.

How to go about implementing it
- Reduced inventory (finished goods and raw material)
- Improved product profit margin
- Reduced SG&A cost

Impacted Operational Metrics/Decisions
- Return on Investment

Typical ROI
- Assessment (6 – 12 Weeks)
Quick ROI Idea – SKU Rationalization
Case Study – Industrial Products Company

Background
- 3% of sales and profit came from 76% of SKUs, which created unnecessary complexity and higher costs
- The products competed for capacity on constrained periods, leading to overtime and poor customer service
- There was high organizational complexity due to the need to support these products and associated customers, leading to higher SG&A costs

Sales, Profits and Inventory Cost by Product

Solution
- Conducted customer and product stratification
- Eliminated unnecessary products
- Rationalized product portfolio
- Implemented business rules to offer differentiated services

Business Results
- Disproportionate gains made by cutting marginal products
- Inventory fell by much bigger margin than sales
- Profitability of the total portfolio increased substantially
- Operational complexity decreased

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Appendix
Supply Chains Are Complex Systems

1. Complex systems consist of a large number of elements.
2. The elements have to interact and this interaction must be dynamic.
3. The interaction is fairly rich, i.e. any element in the system influences, and is influenced by, quite a few other ones.
4. Firstly, the interactions are non-linear.
5. The interactions usually have a fairly short range, i.e. information is received primarily from immediate neighbors.
6. There are loops in the interaction.
7. Complex systems are usually open systems, i.e. they interact with their environment.
8. Complex systems operate under conditions far from equilibrium.
9. Complex systems have a history. Not only do they evolve through time, but their past is co-responsible for their present behavior.
10. Each element in the system is ignorant of the behavior of the system as a whole.