Managing End-to-End Supply Chain Costs in a Down Economy

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As an analyst with AMR Research's Research and Advisory Group, Jane Barrett specializes in supply chain research for manufacturers. Jane covers trends and best practices in Sales & Operations Planning, Supply Management and Collaborative Commerce.

Jane brings over 20 years of experience in business consulting and ERP to her role as a research director. She has helped global organizations and mid-market manufacturers plan, design, and implement solutions that achieve their business objectives, involving globalization, standardization and change management. She has led the development of tools and methodologies to enable project management, process design, lean initiatives, and performance metrics.

Jane earned her Bachelor of Arts from the University of Natal, South Africa.

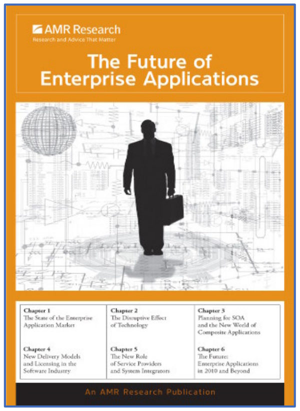
20+ years in IT, manufacturing, technology, ERP and consulting industries:

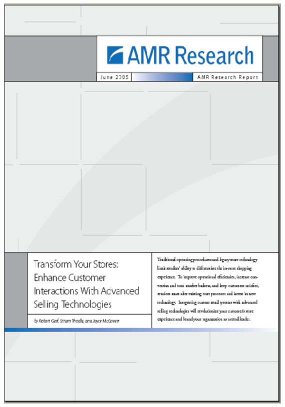
- 2 ½ years at AMR Research focusing on core supply chain for Manufacturing organizations
- 5 years in the US helping industrial and medical device manufacturers and automotive suppliers reorganize, improve processes and deploy ERP
- 9 years in South Africa working with multi-nationals and large South African organizations in industrial, auto, CPG and pharma (own business)
- 7 years with Hewlett Packard and Unilever in South Africa

AMR Research is an advisory and research firm focused on manufacturing and retail supply chains, enterprise applications and software strategies.

Since 1986, we have focused on the intersection of business process with supply chain, and enterprise technologies.

We help clients through retained advisory services and peer networking forums.





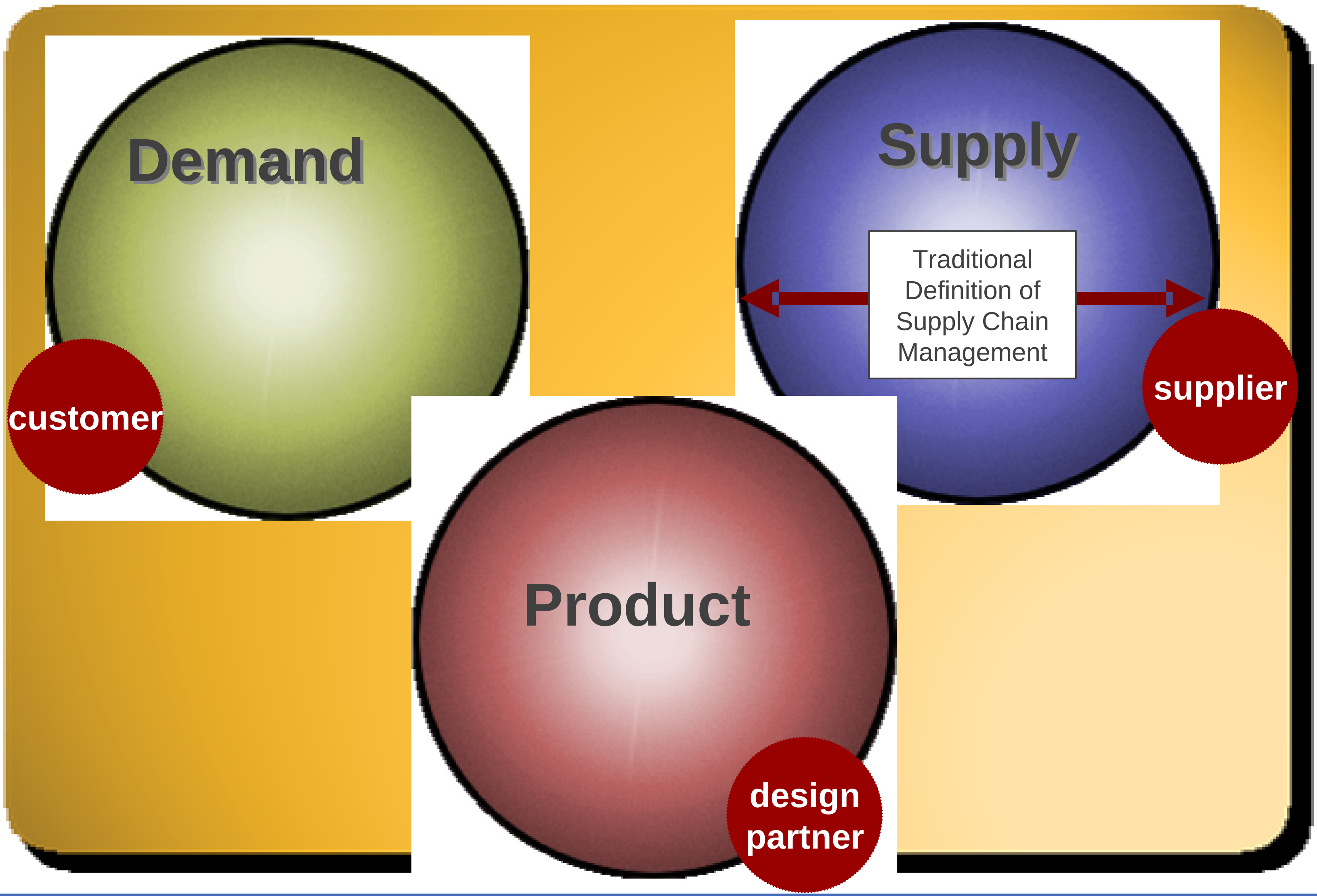
Managing End-to-End Supply Chain Costs in a Down Economy

Leaders are focusing on surviving the recession in a way that prepares them for the recovery. The only thing worse than not scaling down fast enough in a downturn is being caught flat footed at the recovery and losing share to competitors. While survival is the name of the game, there are steps you can take to cut costs in the short term and position yourself to detect and profit from the recovery when it comes. This session will help you think about these five areas while you focus on short term survival as well as longer term opportunity:

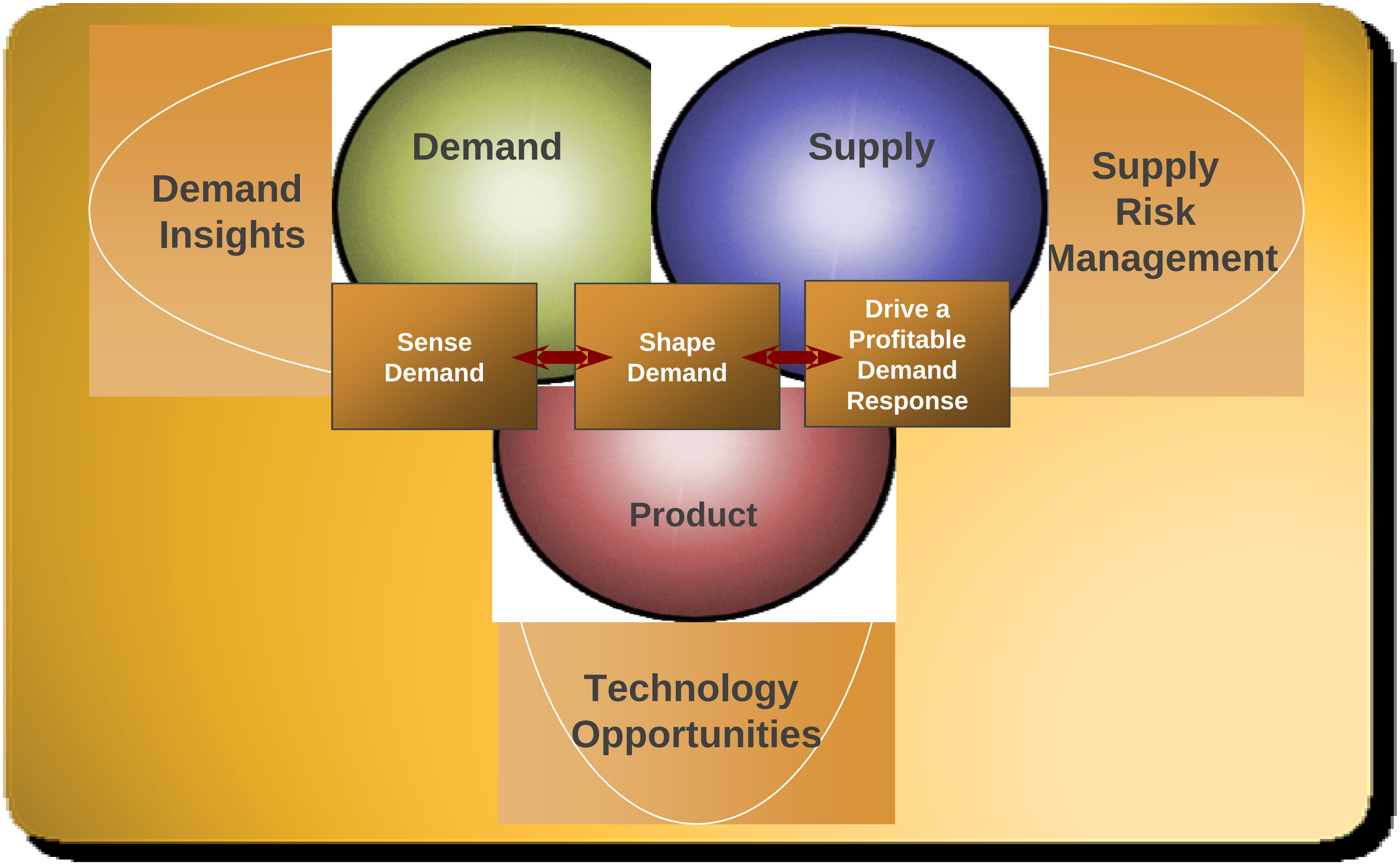
- *Supplier relationship and risk management has become a strategic priority*
- *Managing commodities in an economy with extreme commodity price volatility*
- *In the desperate pursuit of revenue, maintain customer profitability by controlling cost to serve*
- *While reducing capacity, restructure your value chain to be more efficient, scaleable and responsive to uncertain demand*
- *Get the most for your scarce R&D dollars by tightening your product portfolio management and stage gate process*

Bottom Line: Companies change during a recession. Will the changes you make just help you survive or will you emerge stronger than before?

Traditional Supply Chains



Demand-driven Processes

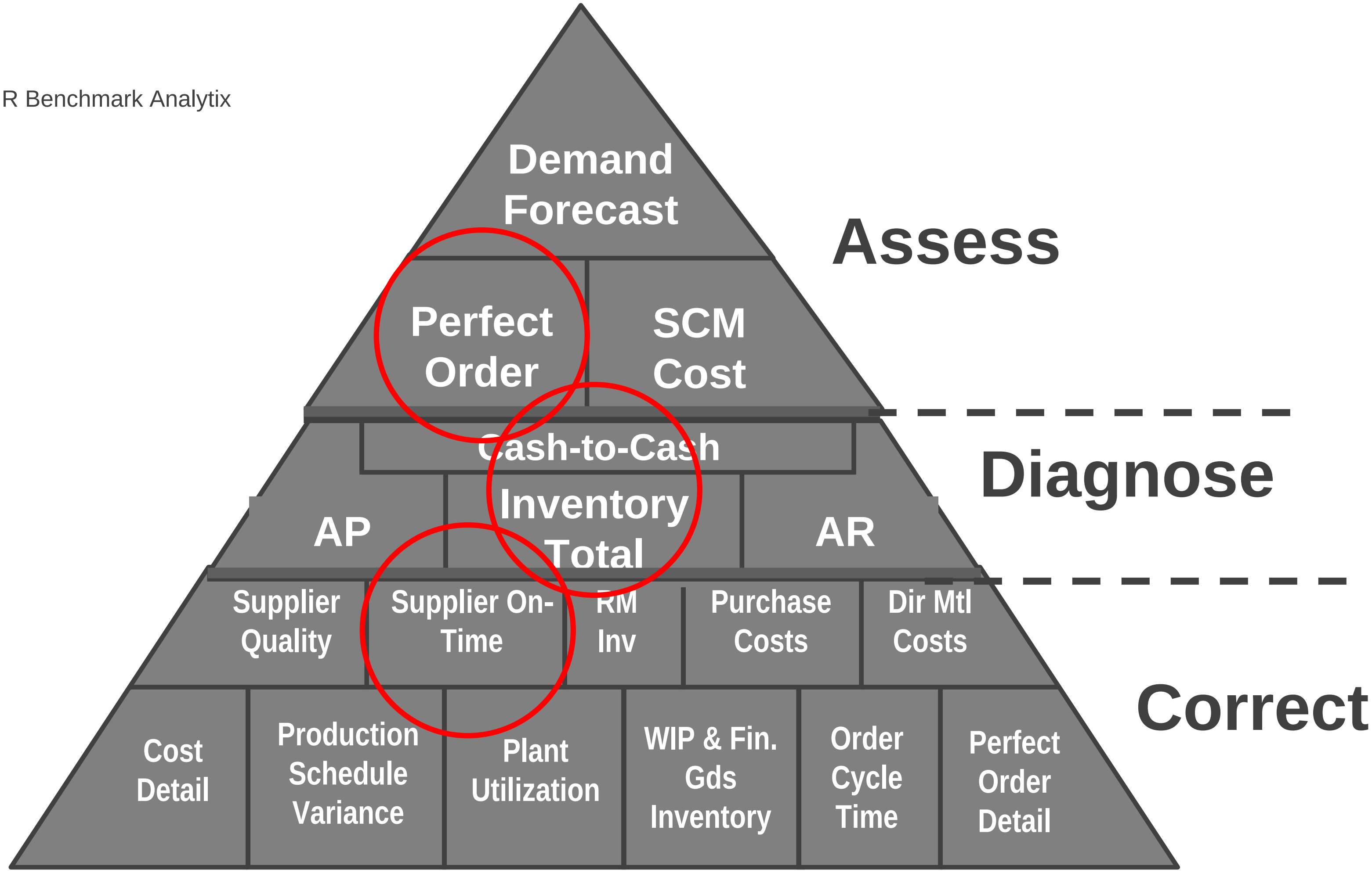


Agenda

- Supplier relationship and risk management
- Managing commodities
- Customer profitability through cost to serve
- Agility - become more efficient, scalable and responsive
- Product portfolio management

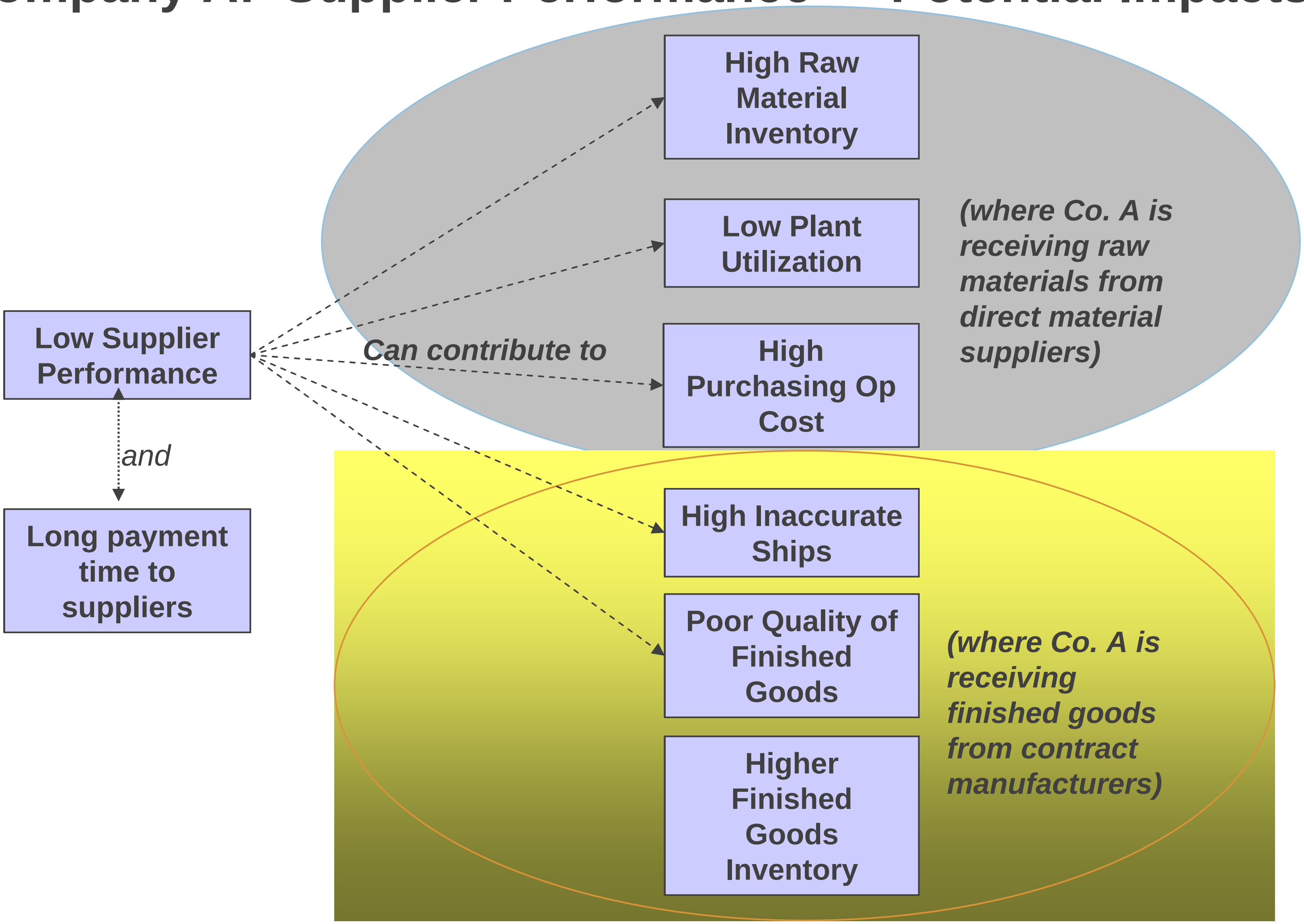
Understand the Metric Interdependencies

Source: AMR Benchmark Analytix



Companies with better supplier on-time delivery performance….
Hold half the inventory (17 vs. 35 days) and
have an eight point better perfect order performance

Company A: Supplier Performance --- Potential Impacts



The risks have increased….

Supply management risk categories

Area of focus/strategy	Type of risk
Contract management	Compliance risk
Network design for agility	Supplier/logistics risk
Social responsibility	Brand risk
Hedging strategies	Cost risk
Supplier development/supply base monitoring	Capacity risk
Multisourcing strategies	Supplier failure risk
Supplier qualification and audit program	Quality risk
Alternates and substitute materials, suppliers, and design	Availability risk
Spend management	Market risk
Intellectual property management and traceability	IP and counterfeit risk
Employee learning and growth programs	Workforce risk
IT strategy	Data risk

Source: AMR Research, 2007

How financially viable are your suppliers?

Supplier financial health risk assessment

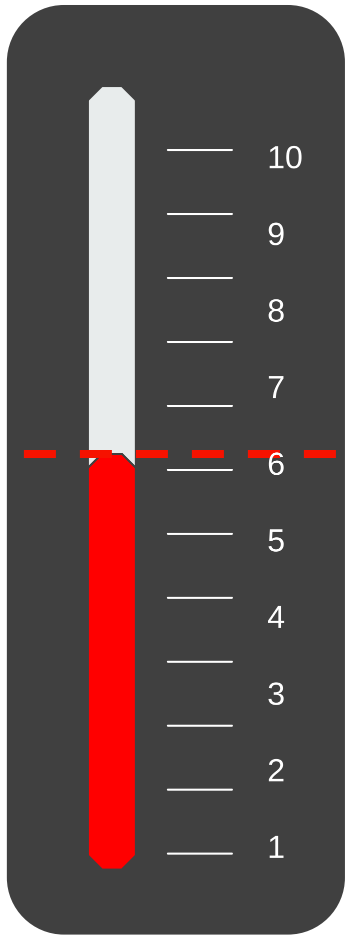
Strategic Issues	Q1	Q2	Q3	Q4
Expansion/contraction—Reports of acquisitions or divestitures in the recent year				
Collaboration—New agreements with other companies and/or new divisions within a current relationship				
Product—New product or service available				
Contracts—Opening and closing contractual agreements with suppliers and customers				
Industry—Large-scale market and industry changes to next tier suppliers				
Operations Issues	**Q1**	**Q2**	**Q3**	**Q4**
Cost—Cost-reduction activities				
Dispose—Sale of assets or reduction of assets				
Commercial—Increase or decrease in marketing efforts				
Upgrade—Product and/or process improvements				
Financial Issues	**Q1**	**Q2**	**Q3**	**Q4**
Long-term debt to total assets				
Total assets trends				
Cashflow from operations and total liabilities				
Payments or loans in default				
Equity positions and plans to sell				
Percentage reliance on loans and credit agreements				
Employee reduction				

Source: AMR Research, 2008

Are you Building Collaborative Relationships or Implementing Collaborative Practices?

Collaborative Relationships

•Relationship and process driven
•Continuous improvement for joint value creation
•Performance-driven business networks



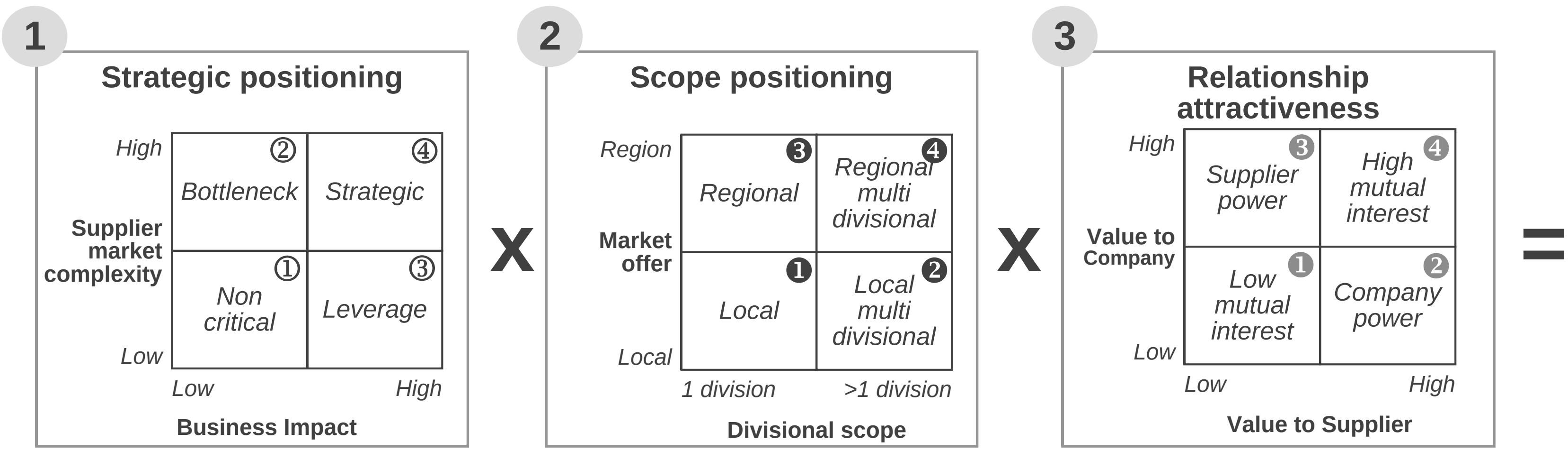
Enablers:
Value driven business strategy
Performance-based Logistics (A&D)
Jointly executed kaizen events
Joint ventures
Network redesign

Collaborative Practices

•Individual role driven
•IT project centric
•Silo metrics

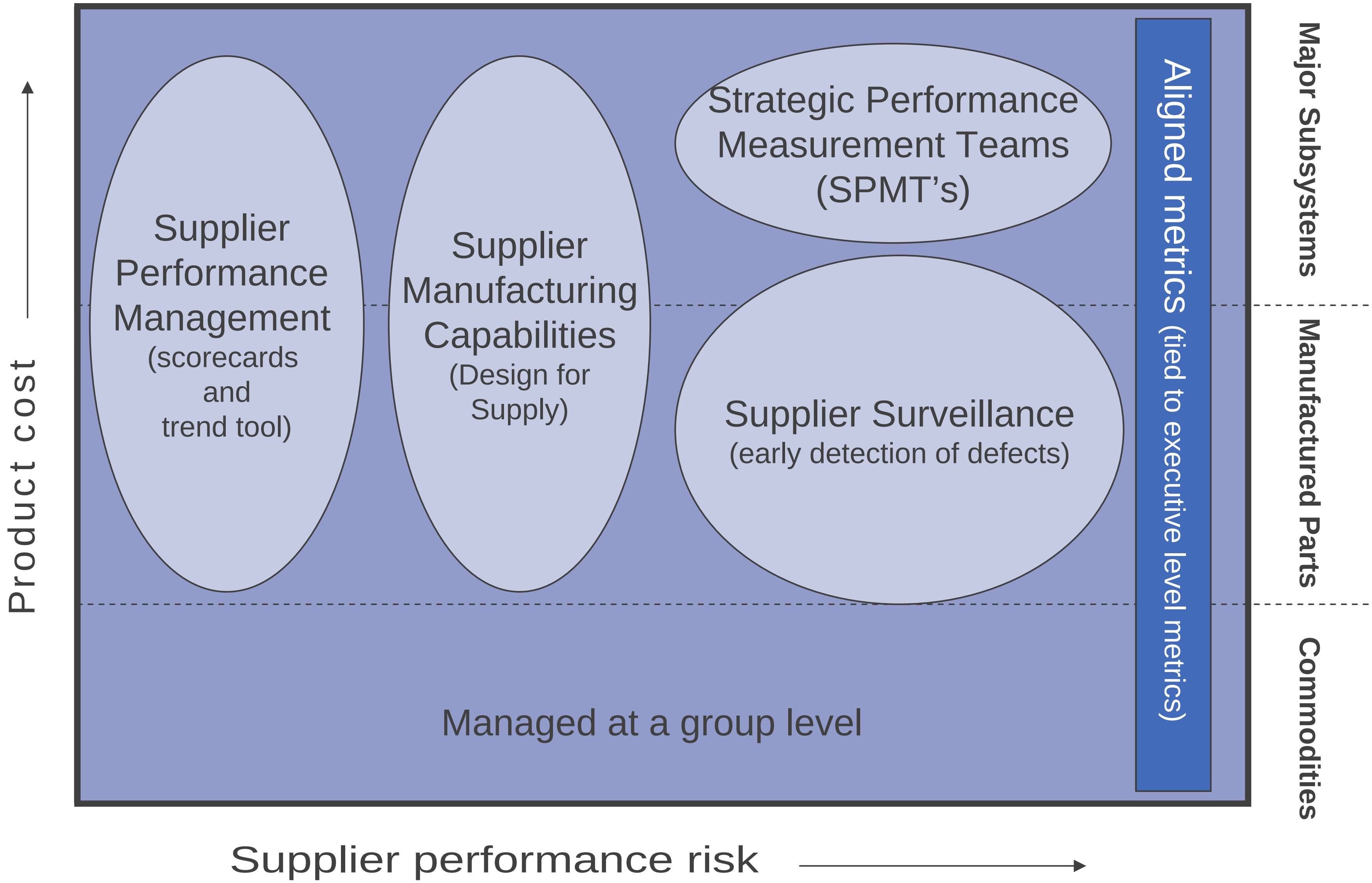
Enablers:
Commerce Networks/Integration Hubs
CPFR
VMI programs
Supplier performance management
EDI, B2B and Portals

Case study 1: Supplier Segmentation



- **Integrated suppliers**
- **Collaborative suppliers**
- **Transactional suppliers**

A&D Case Study: Supplier Segmentation



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Beyond the scope of the Commodity Manager….

Six factors to consider:

1. ***Build demand-driven multi-tier supply management capabilities***
2. ***Consolidate suppliers and get a handle on master data***
3. ***Improve cost analysis capabilities to redefine the value network***
4. ***Get good at contract management***
5. ***Break down those internal silo's and get aligned***
6. ***Design for supply and postponement***

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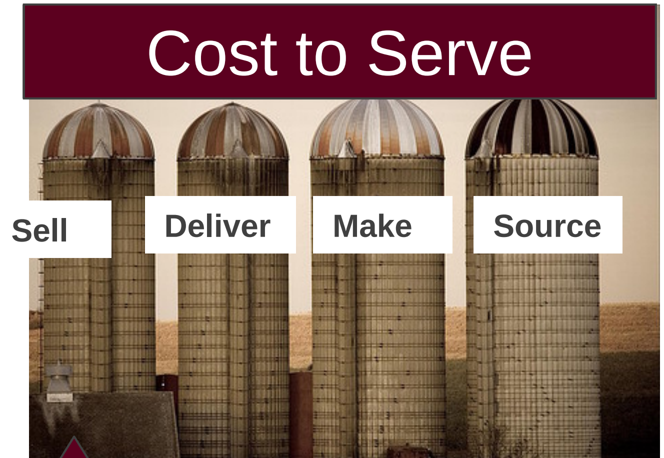
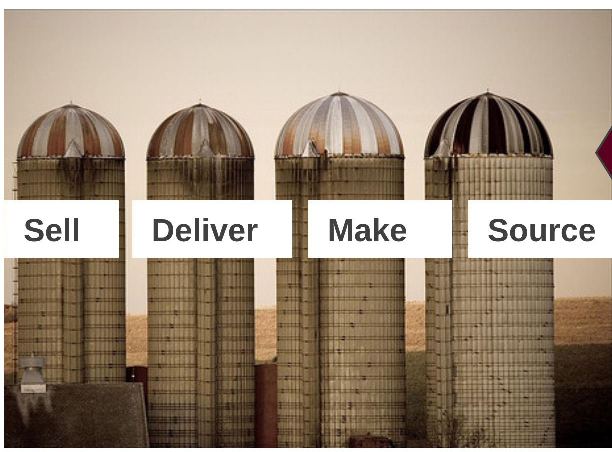
Cost to Serve Practices are Evolving



3% of Supply Chains Make Decisions Based on Cost to Serve

20% of Supply Chains Make Decisions on Total Supply Chain Costs



Definition

Cost-to-serve analysis calculates the profitability of products, customers and routes to market - and to give a fact-based focus for decision making -- on service mix and operational changes for each customer.

Data used in analysis

Q. What data do you use as part of your cost-to-serve analysis?

	TOTAL	Consumer electronics	CPG	Other mfg	Wholesale/ Distribution
Transportation costs	73%	62%	76%	76%	72%
Inventory handling costs	69%	57%	68%	80%	62%
Order quantities and frequencies	68%	67%	74%	66%	62%
Inventory carrying costs	67%	71%	60%	76%	62%
Warehouse management costs	62%	48%	62%	62%	72%
Raw materials costs	61%	52%	58%	74%	48%
Fixed costs	60%	48%	58%	64%	66%
Customer service costs	58%	62%	60%	54%	59%
Order management costs	54%	57%	50%	58%	52%
Manufacturing conversion costs	52%	57%	50%	72%	17%
Product mix costs	49%	33%	58%	50%	45%
Returns costs	47%	43%	50%	44%	52%
Damage costs	37%	24%	48%	26%	48%
Special requests costs	37%	33%	36%	42%	34%
Energy costs	33%	24%	36%	36%	28%
A/R processing costs	32%	43%	28%	30%	34%
Total =	*150*	*21*	*50*	*50*	*29*

Sample Size = 150 companies who engage in cost-to-serve analysis

Challenges behind harmonizing data: TOP CHALLENGE

Q. What challenges do you face when collecting and harmonizing data for cost-to-serve analysis?
Q. Which do you consider your top challenge?

	TOTAL	Consumer electronics	CPG	Other mfg	Wholesale/ Distribution
Data harmonization and cleansing	25%	29%	30%	24%	17%
Understanding how to use the data	20%	5%	22%	28%	14%
Internal leadership	15%	10%	8%	16%	28%
Data maintenance	13%	29%	10%	10%	14%
Downstream partner collaboration	11%	19%	10%	12%	3%
Data loading and parsing	8%	5%	6%	8%	14%
Data storage	5%	0%	12%	0%	7%
Other	3%	5%	2%	2%	3%
Total =	*150*	*21*	*50*	*50*	*29*

Sample Size = 150 companies who engage in cost-to-serve analysis

How does cost-to-serve analysis help?

- Identify cost savings based on activity based analysis
- Prioritize areas for process improvements
- Develop pricing and estimating models based on true costs
- Helps define strategies for profitable and unprofitable customer segments
- Support sales negotiation
- Provide actionable information to help product management with product strategies

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Organizations need to be BALANCED. To get balance….

7 Demand-Shaping Levers

- Marketing programs
- New product introductions
- Promotions
- Trade deals
- Sales incentives
- Price management
- Supply shaping/run out strategies

7 Levers of Agility

- Postponement/late-stage differentiation
- Drive transparency through VMI and SMI
- Design for supply and reuse
- Logistics policies
- Adaptive networks
- Flexible manufacturing strategies

Case Study: How many Supply Chains do you have?

Tactics and techniques differ by strategy

Volume	Low Demand Predictability	High Demand Predictability
High	**Responsiveness** •Low levels of demand shaping •Pull-based VMI & SMI •Use of downstream data •Postponement •Pooled inventories •Flexible transportation networks	**Efficiency** •High levels of demand shaping •Lean production techniques •Use of third-parties for Manufacturing •Direct plant shipments
Low	**Agility** •Flexible manufacturing work systems •Design for supply •Design networks •Pooled inventories	**Responsiveness** •Opportunistic demand shaping •Stochastic optimization and inventory simulation •Daily calculations of inventory levels

High

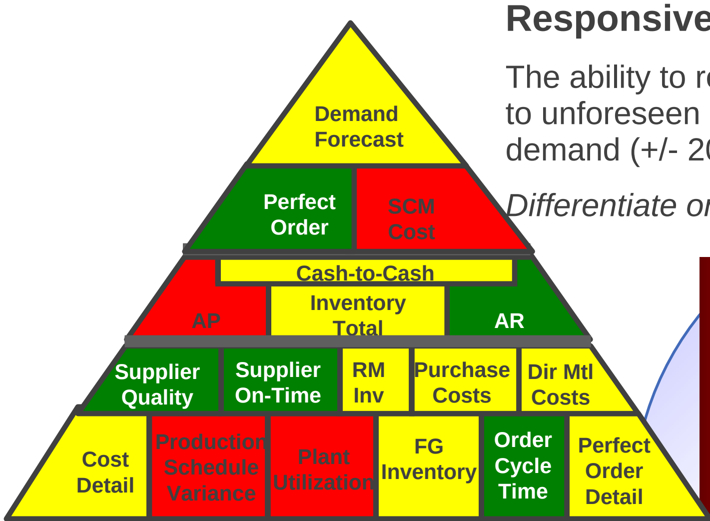
Volume

Low

Low → High

Demand Predictability

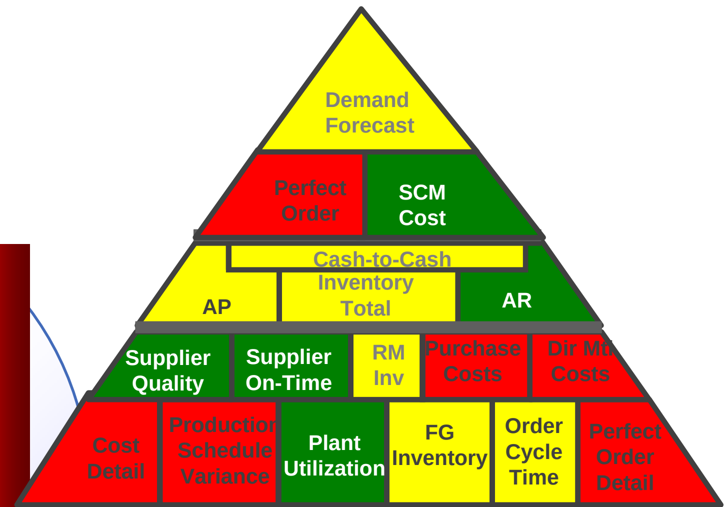
Metrics Alignment

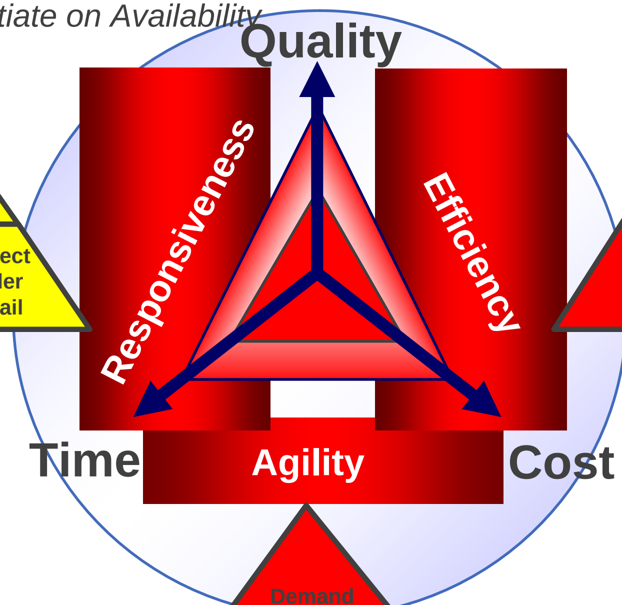


Responsive

The ability to respond to unforeseen changes in market demand (+/- 20%) for existing products

Differentiate on Availability





Efficient

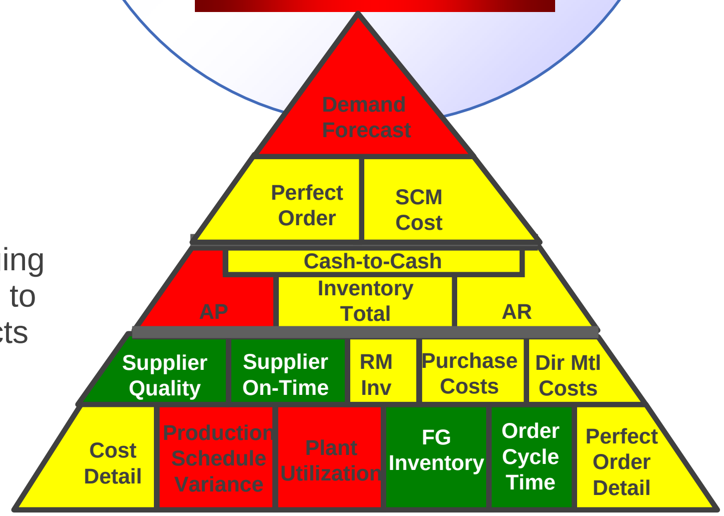
The degree to which a system can minimize total delivered cost and waste

Differentiate on Total Landed Cost

Agile

The ability to adapt to changing market requirements related to commercializing new products and technologies

Differentiate on Adaptability



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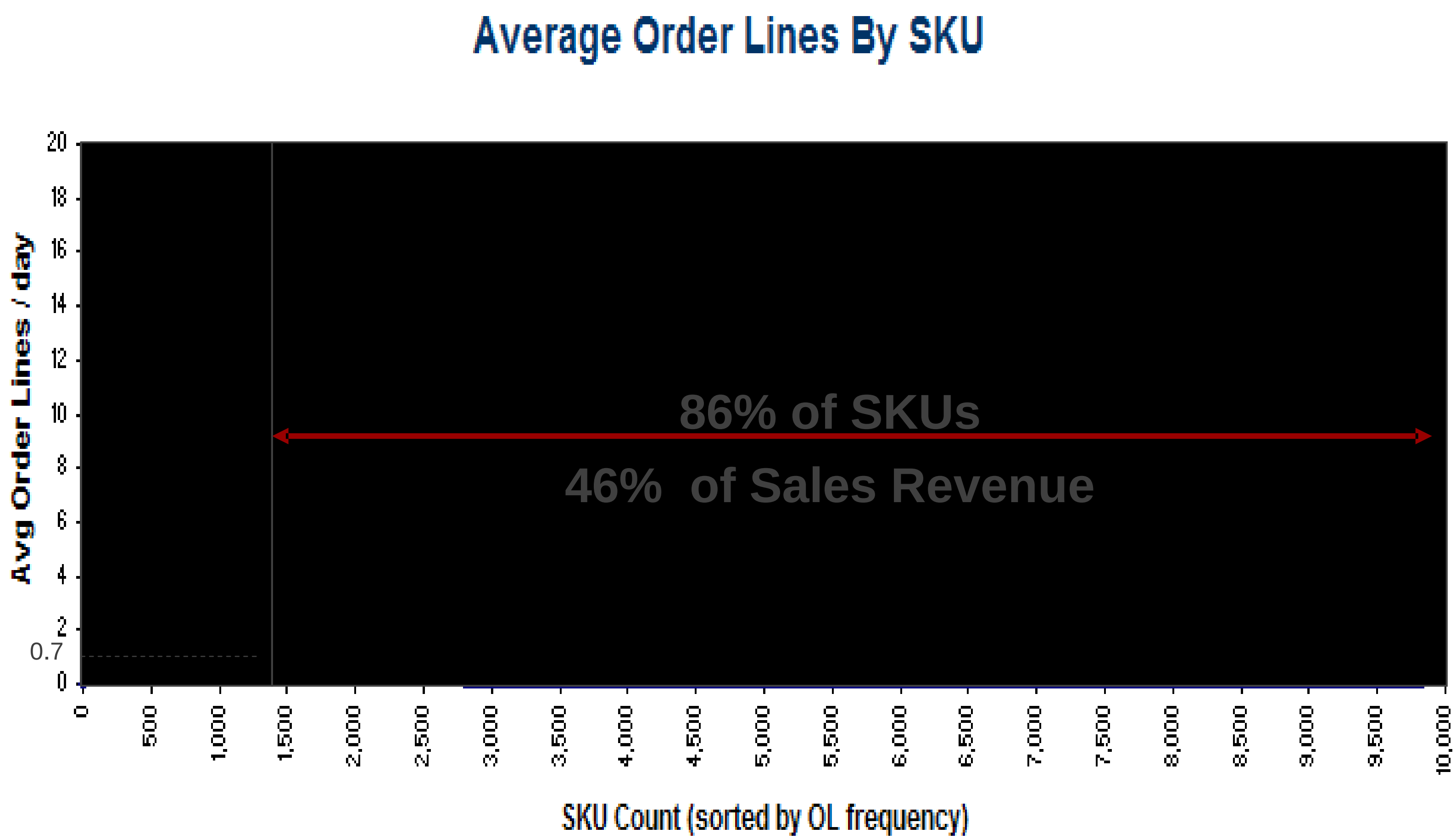
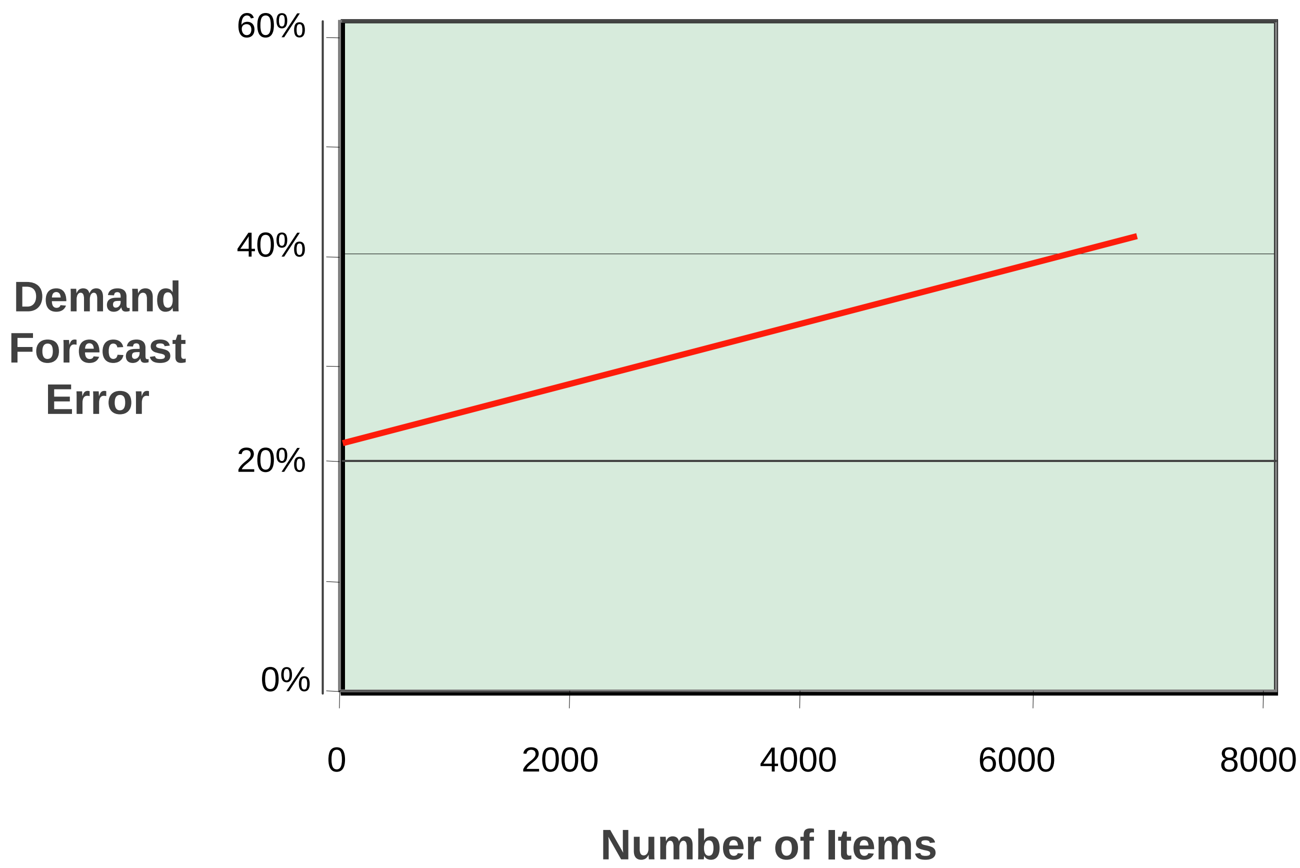
Item Proliferation



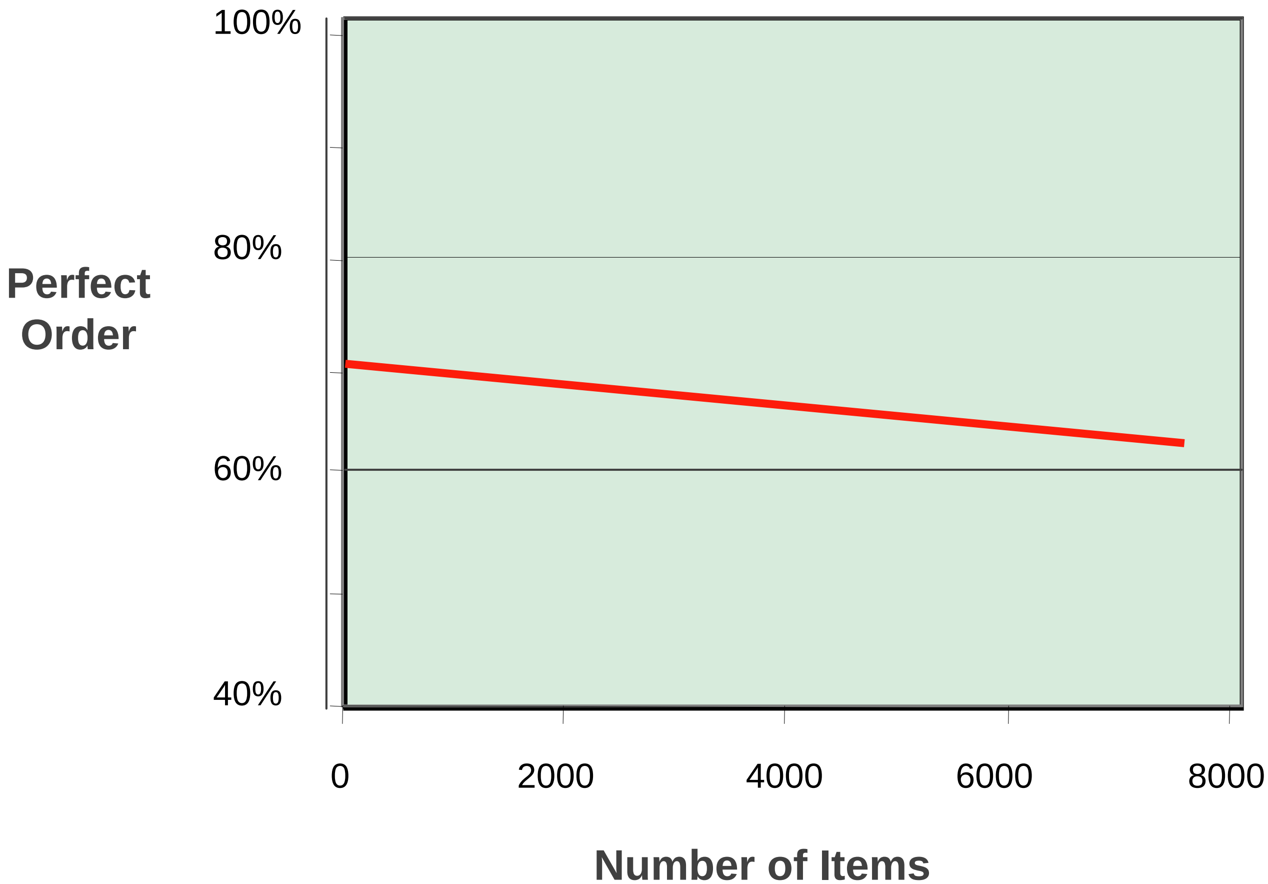
Replenishment Control Frequency = Daily

Forecast Error and Item Complexity



Source: AMR Benchmark Analytix, CPG

Perfect Order and Item Complexity



Source: AMR Benchmark Analytix, CPG

Complexity

- SKU rationalization
  - Need to rationalize product attributes against customer attributes
- Differentiate between good and bad complexity
- Initiate a process:
  - Product portfolio owner
  - Review and rationalization
  - Ensure trade’s ability to execute
- End of life/product phase out planning
- Include this on your S&OP agenda

Wrap Up & Questions

- *Supplier relationship and risk management has become a strategic priority*
- *Think about how you manage commodities in an economy with extreme price volatility*
- *In the desperate pursuit of revenue, maintain customer profitability by controlling cost to serve*
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