SUPPLY CHAIN MANAGEMENT BEST PRACTICES

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Definitions

What is "Best Practices"

- A leading-edge activity, operation, or process that is innovative and successfully implemented and thus provides a more efficient and effective means of conducting business, helping an organization to reduce its costs and improve quality and customer service.

How does the term " Leading edge" fit in?

- Going in advance or showing the way. In the context of supply chain management, leading-edge typically refers to a process, practice or procedure that is more advanced than that performed by most organizations.

What does “Best-in- Class” mean ?

- An organization within an industry that is identified as a state-of-the-art performer on selected benchmarks for an activity, operation or process.

What is Supply Chain Management

- Supply Chain
  - The network of organizations that extend downstream to customers' customers and upstream to suppliers' suppliers

- Supply Chain Management
  - The design and management of seamless, value-added processes across organizational boundaries to meet the real needs of the end customer.

Process Oriented Models

- **Two important process-oriented supply chain models are:**
  - The Supply Chain Operations Reference (SCOR) Model developed and maintained by the Supply Chain Council (SCC), a nonprofit membership organization open to all corporations,governments,military agencies consultants and academicians
  - The GSSF Model developed by the Global Supply Chain Forum of Ohio State University
- **These models are the sources of the various definitions of Supply Chain Management**

Global Supply Chain Forum (GSCF) Definition

- Supply Chain Management is the integration of key processes from end user through original suppliers that provide products,services and information that add value for customers and stakeholders using the following eight management processes:
  - **Customer Relationship Management CRM)**
  - **Customer Service Management**
  - **Demand Management**
  - **Order Fulfillment**
  - **Manufacturing Flow**
  - **Supplier Relationship Management**
  - **Product Development and Commercialization**
  - **Returns Management**
- Assumption
  - That supply chain is dominated by a manufacturing firm (a nucleus firm)-not a distributor, retailer or producer of services

SCOR Model Definition

- Supply Chain management is to monitor and improve on supply chain performance by using the following five management processes by your firm as the nucleus firm:
  - Plan
  - Source
  - Make
  - Deliver
  - Return

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APICS Definition

- And finally the *APICS Dictionary,11th edition* ,defines supply chain management as

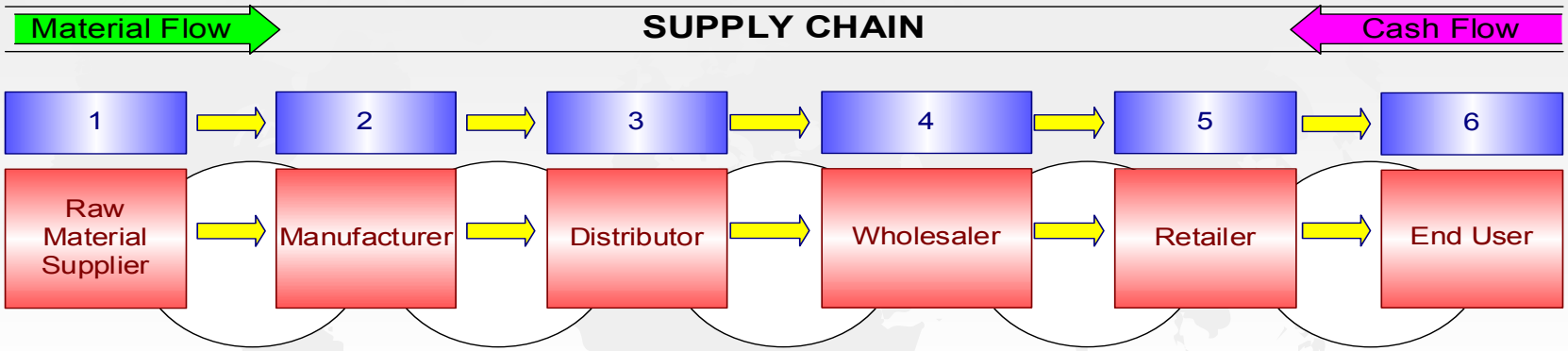
"the design,planning,execution,control,and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally"

- **APICS definition draws from the two models**

APICS DEFINITION OF SUPPLY CHAIN MANAGEMENT

SUPPLY CHAIN MANAGEMENT

The planning, organizing and controlling of the flow of materials and products from source to end users.



Key Concept of Supply Chain Management is the INTEGRATION of supply sources with the manufacturing and distribution functions and the ultimate customers into one continuous supply chain.

SUPPLY CHAIN MANAGEMENT INTEGRATION BENEFITS:

- increased customer service
- reduced costs
  - ordering, inventory, transportation, warehousing etc.
- a win-win situation for all supply chain members

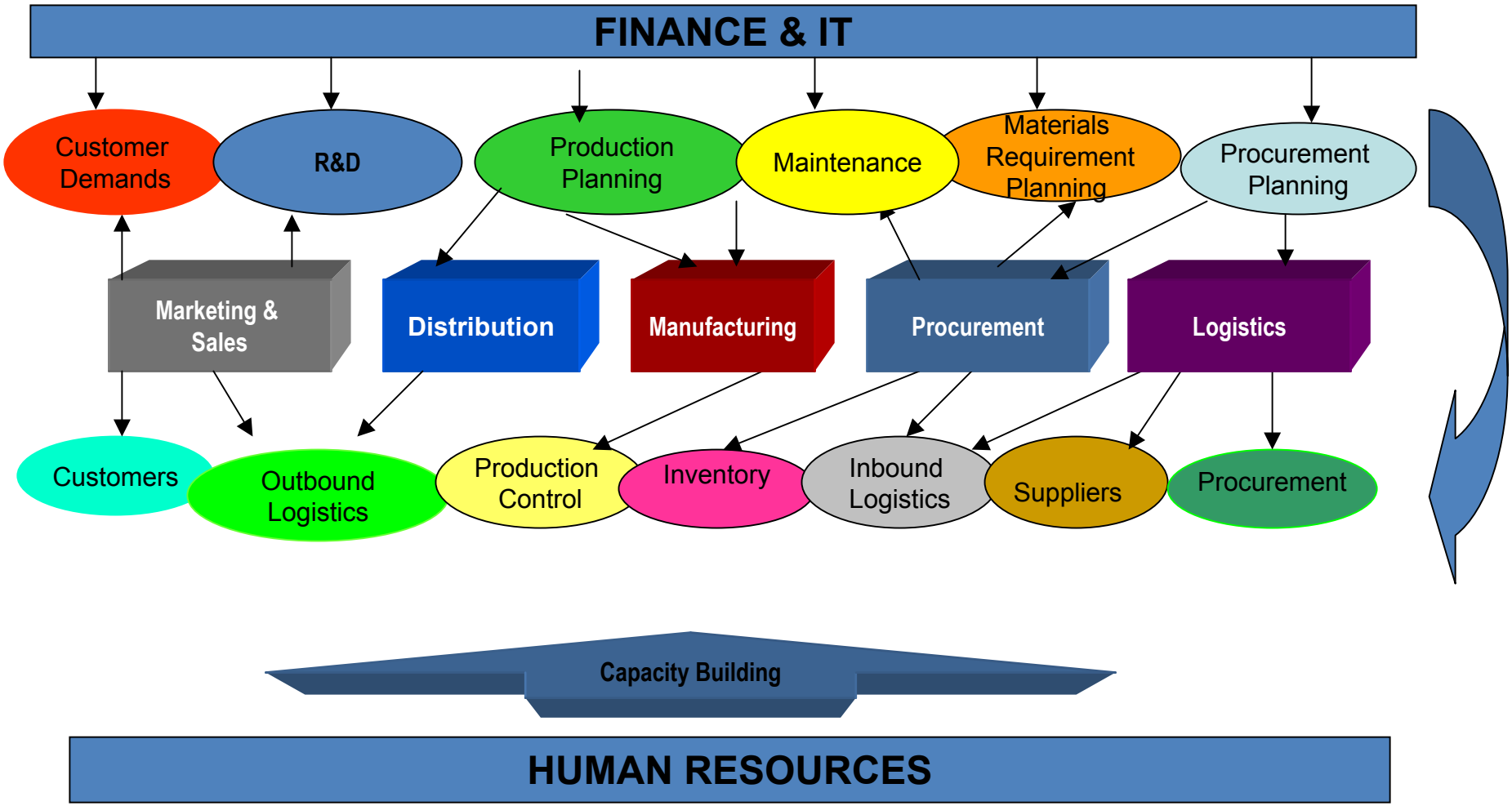
What is included in Supply Chain Management?

- Purchasing (acquisitions and sourcing)
- manufacturing
  - MPS, RCCP, MRP, CRP, Scheduling
- distribution (DRP)
- inventory management
- warehousing
- transportation (inbound and outbound)
- sales and marketing
- customer service, promotions

Managing the Supply Chain

- Integration of internal processes in the nucleus firm (manufacturer) through cross-functional collaboration is an absolute necessity as a prelude to developing end-to-end supply chain management.
- Illustration in the next slide is a visual representation of a linked internal supply chain with collaboration between functions and sharing of information through a company wide enterprise resource planning (ERP) software.

AN INTEGRATED ENTERPRISE



Corporate Strategy

- Corporate strategy identifies how a company will operate in an environment.
- The Strategy specifies how to:
  - **Satisfy customers,**
  - **Make business grow,**
  - **Compete in its environment,**
  - **Manage the organization,**
  - **Develop capabilities,**
  - **Achieve financial objectives**.

How Corporate Strategy relates to Supply Chain Strategy

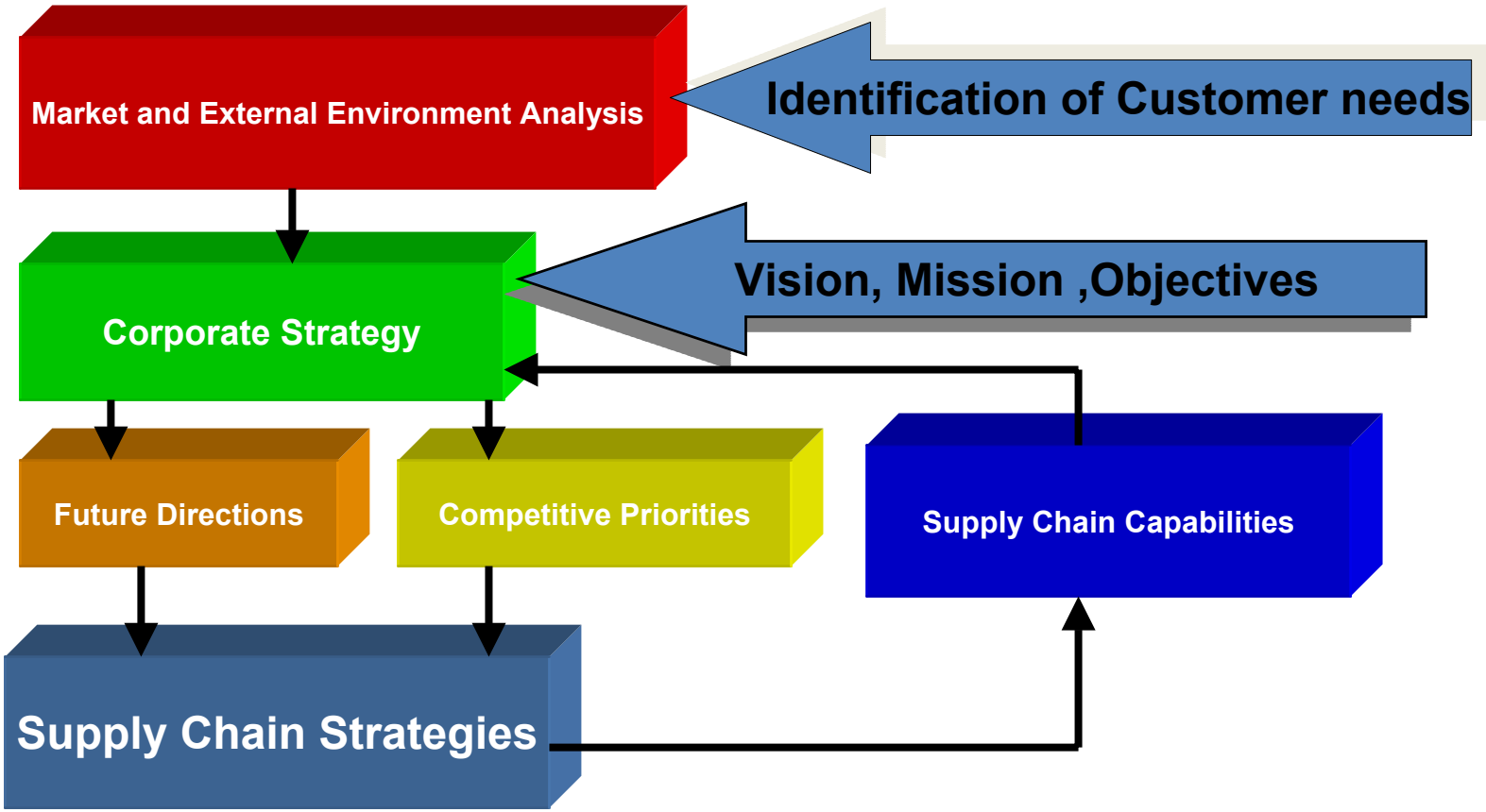
- Whatever strategy the corporation adapts to satisfy customers,grow,compete,organize itself and make money, supply chain has to operate for these goals to be furthered.

- Success of a supply chain depends first upon alignment of supply chain strategy and corporate strategies.

Aligning Supply Chain Strategy with Corporate Strategy

- The success of the supply chain in achieving its two-sided goal of creating customer value and financial value rests upon sound strategic planning in the following areas:
  - Organizational design
  - Supply Chain Processes
  - Systems and Technology
  - People
  - Supply Chain Metrics

Aligning Corporate and Supply Chain Strategies



SUPPLY CHAIN MANAGEMENT PROCESSES

Value Creation through SCM

- Supply Chain Management, like any other type of business management, aims to create value, that is businesses, at least in a capitalist context,exist to make money.

- Turning Profit is a measure of business success.

- Granted that money is a necessary measure of success of supply chain management but is it also a sufficient measure?

- Are there other values involved ?
- Are there limits on legal ways money can be generated ?
- The answer to these questions has to be a yes.

Types of Value that SCM can create

- For our purpose, we will focus on three types of value that SCM can create to improve on efficiency:

  - **Financial Value**
  - **Customer Value**
  - **Social Value**

Financial Value

- Traditionally Supply Chain Management efforts are generally aimed at improving financial performance by reducing costs.
- While squeezing excess costs out of supply chain has the potential to provide value, it has to be done carefully for the following reasons:
  - **Trade-offs may be self defeating** -cost cutting should aim at gains to the bottom line not just shifting costs from one function to another.
  - **It takes money to make money** –the old cliché applies in a major way to supply chain executives who reduce costs by reducing staff, cutting outlays for training or delaying expenditures is a recipe for immediate stagnation and eventual failure. Lean is good ; Starving is not good.
  - **Gains must be equitably distributed to all stakeholders**-while customer discounts are good for market share other stakeholders have to be rewarded.

Customer Value

- In a competitive economy, making money depends upon serving customer needs.
- Supply Chain needs to be managed with an eye to delivering one or more of the following values to its end customer:
  - **Quality of product or service**
  - **Affordability**
  - **Availability**
  - **Service-delivery of a product may be wrapped in services i.e.:**
    - ✓ Financial services
    - ✓ Warranty agreements
    - ✓ After sales

Social Value

- Supply Chains are also judged on their contribution to the public and Governments
  - **Paying taxes and dues**
  - **Poverty Reduction through employment**
  - **Creating a positive good by delivering socially desired and useful products or services**
  - **Protecting the environment**

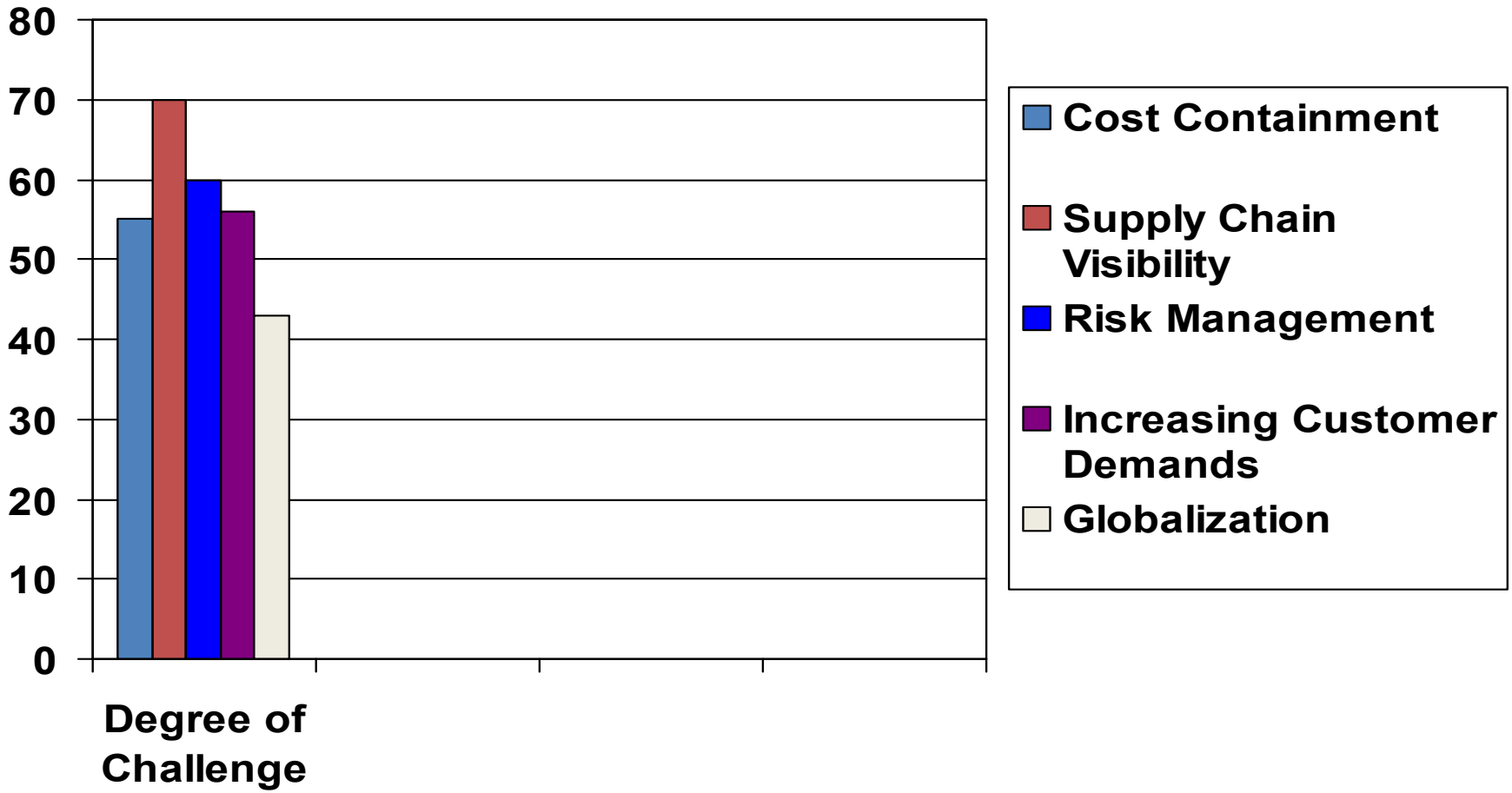
SUPPLY CHAIN CHALLENGES

SUPPLY CHALLENGES FOR CREATIVITY

- According to a Study carried out in 2008 by IBM Global Business Services on Supply Chain Management Practice, identified FIVE TOP SCM challenges as:

  - **Cost Containment**
  - **Supply Chain Visibility**
  - **Risk Management**
  - **Increasing Customer Demands**
  - **Globalization**

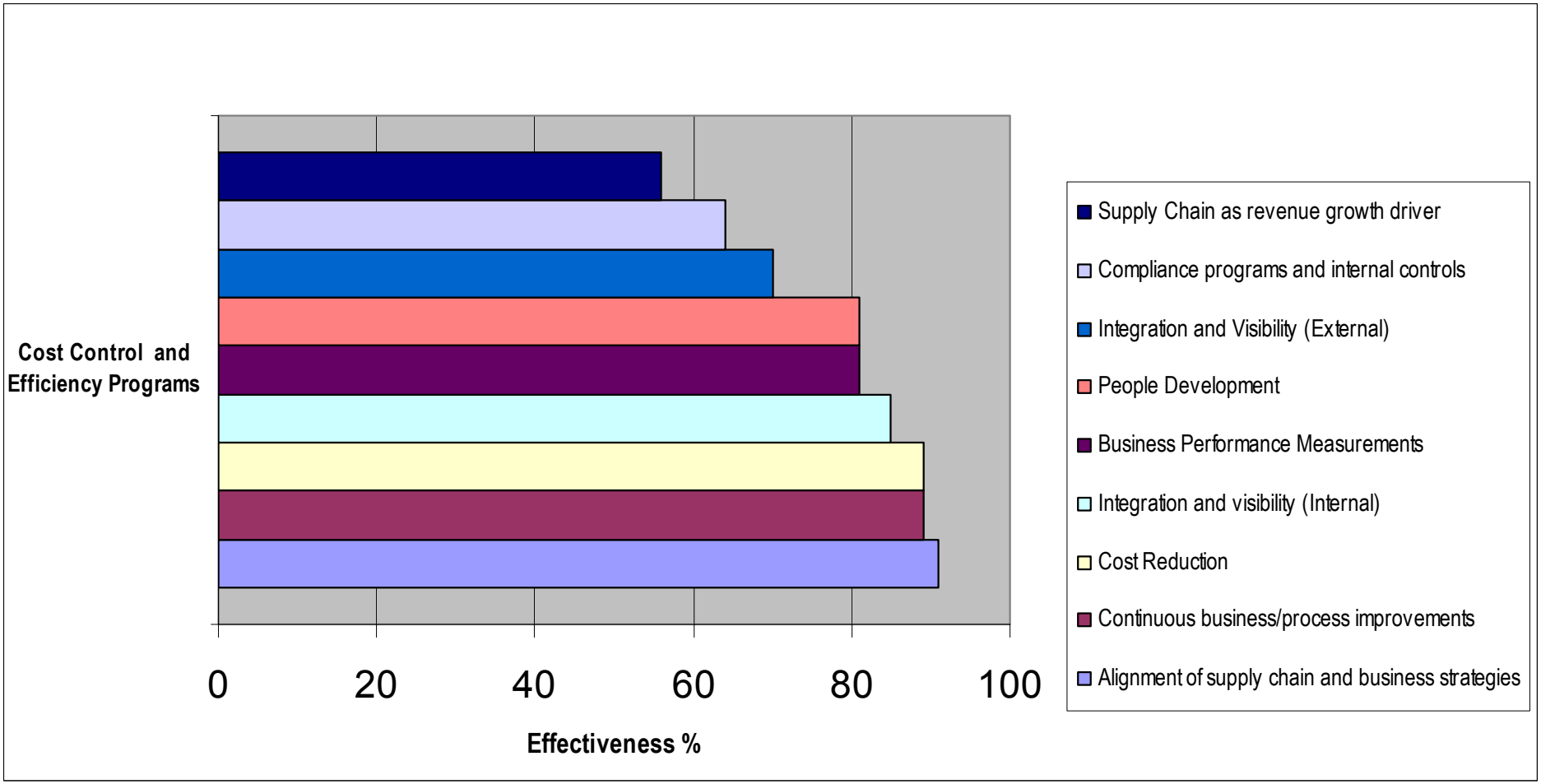
Figure 1:Supply Chain Leaders Battle with 5 Major Challenges



Cost Containment

- Supply Chain can't keep pace with cost volatility
- Supply Chain Executives find themselves reacting to whatever the cost issue of the day is.
  - **Escalating fuel prices**
  - **Rapid wage inflation in previously low cost labour markets**
  - **Spikes in commodity prices**
  - **Sudden Credit Freeze**
- Shifts in costs and other operational fundamentals are happening so fast that conventional supply chain strategies and techniques. These get outdated before they are even implemented

Figure 2: Cost Controls and Efficiency Programs outnumber growth programs in SCM



Supply Chain Visibility

- When SC visibility is referred to,it does not simply mean visibility into your own supply chain.
- It means visibility amongst partners which enables collaborative decision making closer to the customer by managing:
  - Technology
  - Information
  - Metrics
- Supply chain executives cite significant cultural barriers to achieving the level of interaction and visibility they need.
- Though it may mean logical to blame poor visibility and collaboration on poor IT, Supply Chain Executives now point elsewhere-TO ORGANIZATIONAL SILOS AND FAILURE TO SHARE INFORMATION !

Supply Chain Risk Management

- Supply Chain Executives agree on SC Risk Management but are divided on the approach.
- There is a deepening realization that and greater supply chain interdependence have not only elevated supply chain risk but also has made it very difficult to manage.
- Lack of standardized processes, insufficient data and inadequate technologies are major stumbling blocks in preventing effective risk management.

Customer Intimacy

- Organizations interact more with suppliers than customers.
- Although technology has made more feasible to than ever to incorporate customer input, working directly with the customers remains the least common supply chain planning practice. In fact demand planning in out of five companies ignores customers completely.

Globalization

- Globalization remains remains top challenge to Supply Chain due to the growing interdepence among economies worldwide.
- Many organizations are encountering issues with :
  - **Global Sourcing**
  - **Unreliable delivery**
  - **Longer lead times**
  - **Poor quality**

The Smarter Supply Chain

- Every insight derived from a world of objects can lead to action and more action.
- With so much embedded intelligence, Supply Chain Management can progress from decision support to decision delegation and ultimately to, a predictive capability
- As the world begins to work differently, we see a different type of supply chain management emerging- a smarter supply chain with three core characteristics:
  - **Instrumented**
  - **Interconnected**
  - **Intelligent**

INSTRUMENTED SUPPLY CHAIN

- Supply chain information that was created by people is now increasingly be generated by sensors, FID tags,meters,actuators,GPS and other devises and other systems.
- In terms of visbility,supply chain will not only be able to " see" more events but also witness them as they occur.
- A smarter supply chain relies less and less on labour based tracking and monitoring as objects like MHEs,containers,trucks,products,parts and services report on themselves.
- Real Time display of status of plans ,commitments, sourcing of supplies, pipeline inventories and demand management.

INTERCONNECTED SUPPLY CHAIN

- Smarter supply chains take advantage of unprecedented levels of interaction with:
  - Customers
  - Suppliers
  - IT Systems
  - Objects that monitor and validate SC performance or are flowing through the SC
- Besides creating a holistic view of the supply chain ,the extensive connectivity facilitates collaboration on a massive scale

INTELLIGENT SUPPLY CHAIN

- A smarter and an intelligent supply chain should be able to assist a supply chain executive in :
  - **Evaluating trade-offs**
  - **Assess myriad constraints and alternatives**
  - **Allowing decision makers to simulate various courses of action**
- A smarter supply chain should be capable of learning and making some decisions without the intervention of humans like reconfiguring supply chain networks when disruptions occur.

SCM BEST PRACTICES

FLEXIBILITY

- Leading Supply Chains focus on ***FLEXIBILITY*** to manage costs.
- These supply chains move more quickly and are agile to allow rapid response to the changing market conditions and variable cost structures that ramp up and down with revenues.
- FLEXIBILITY is the antidote of cost volatility.

VISIBILITY

- Top Supply Chains are collaborating more to improve visibility by implementing practices that:
  - **Customer VMI**
  - **CPFR Programs with customers**
  - **Continuous replenishment**
  - **Planning with suppliers**
  - **Shared real-time Data**

Risk Management

- Top Supply Chains lead in risk management to mitigate risks in:
  - **Process controls in logistics and operations**
  - **Compliance programs with suppliers /providers**
  - **Governance,CSR,environment etc**
  - **Supply Chain Planning**
  - **Event Management to monitor disruptions**

Customer Intimacy

- Leading Supply Chains have more advanced synchronization planning in:
  - **Collaborating with Customers on demand planning more extensively**
  - **More extensive Sales and Operations Planning to meet customer demands**
  - **More extensive Supply Planning with suppliers to meet customer requirements**

Globalization

- Top Supply Chains report greater gains from Globalization and this manifest in the following areas:
  - Improved overall performance
  - Increased Sales
  - Improved Margins

Smart Map for Smarter Supply Chain (1)

SUPPLY CHAIN MANAGEMENT COMPETENCY AREAS				
TREND ON SC BEST PRACTICES	**STRATEGY**	**PLANNING**	**LIFE CYCLE MNGT**	**PROCUREMENT**
INSTRUMENTED	•Visibility & Performance Mngt •SC Optimization •Sensors and monitors of customer demand	Real Time Demand Management	Sensors for preventive maintenance	Proactive and real-time supply network event monitoring
INTERCONNECTED	Alignment of business & SC Strategies Variable cost structures that fluctuate with Market Demand	•Collaborative planning and execution •Integration of Financial and operational analysis	Knowledge sharing for continuous improvement	Strategic sourcing, framework contracts and contract management
INTELLIGENT	Sustained SC cost reduction via advanced analytics Risk-based impact analysis	Networked S&OP with optimized decision support	Sustainable 'green' considerations throughout lifecycle	•Sustainable procurement practices •Intelligent Spend Analysis •Predictive Buy-Sell Analysis

Smart Map for Smarter Supply Chain (2)

SUPPLY CHAIN MANAGEMENT COMPETENCY AREAS				
TREND ON SC BEST PRACTICES	**OPERATIONS**	**ASSET MANAGEMENT**	**LOGISTICS**	**ENTERPRISE APPLICATIONS**
INSTRUMENTED	•Optimization and Event detection •Visibility for operational risk management and control	Total Cost Management	Event Driven Logistics alerts Real-time sensors for optimized network	Monitoring and real time detection and alerts ERP TO MES Integration
INTERCONNECTED	•Demand driven production and postponement	•Integrated asset and resource management	Knowledge sharing for continuous improvement	Collaboration platforms:customer,provider,supplier Enterprise and network performance management
INTELLIGENT	SC Models to manage capital expenditure Simulation Models to evaluate flexibility factors:service levels,costs,timelines and quality	Cost of ownership analysis Proactive redeployment/reconfiguration/divesting of assets	Agile on demand logistics networks Network integration with variable contingency plans and policies	•Business Intelligence and integrated analytics •Predictive analysis and analytics applied to events

CASE STUDIES ON SCM BEST PRACTICES

- Do you have any experience on any SCM best practice ?

THANK YOU