

# **Future Developments & Trends in Supply Chain Management**

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# Overview of Presentation

## ● Introduction & Overview

- What SCM is & what it includes
- Benefits of integrated SCM

## ● Supply Chain Development & Integration

- Core components
- Difficulties in implementation

## ● Supply Chain Metrics & Benchmarks

## ● Future Developments in SCM

# Definition of SCM

**Supply Chain Management** encompasses the planning & management of all activities involved in sourcing & procurement, conversion & all Logistics Management activities. Importantly, it also includes coordination & collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers & customers. In essence, SCM integrates supply & demand management within & across companies.

# Boundaries & Relationships of SCM

**Supply Chain Management** is an integrating function with primary responsibility for linking major business functions & business processes within & across companies into a cohesive & high-performing business model. It includes all of Logistics Management activities, as well as manufacturing operations & it drives coordination of processes & activities with & across marketing, sales, product design, finance & information technology.

# Benefits of Integrated SCM

## ● **Macro**

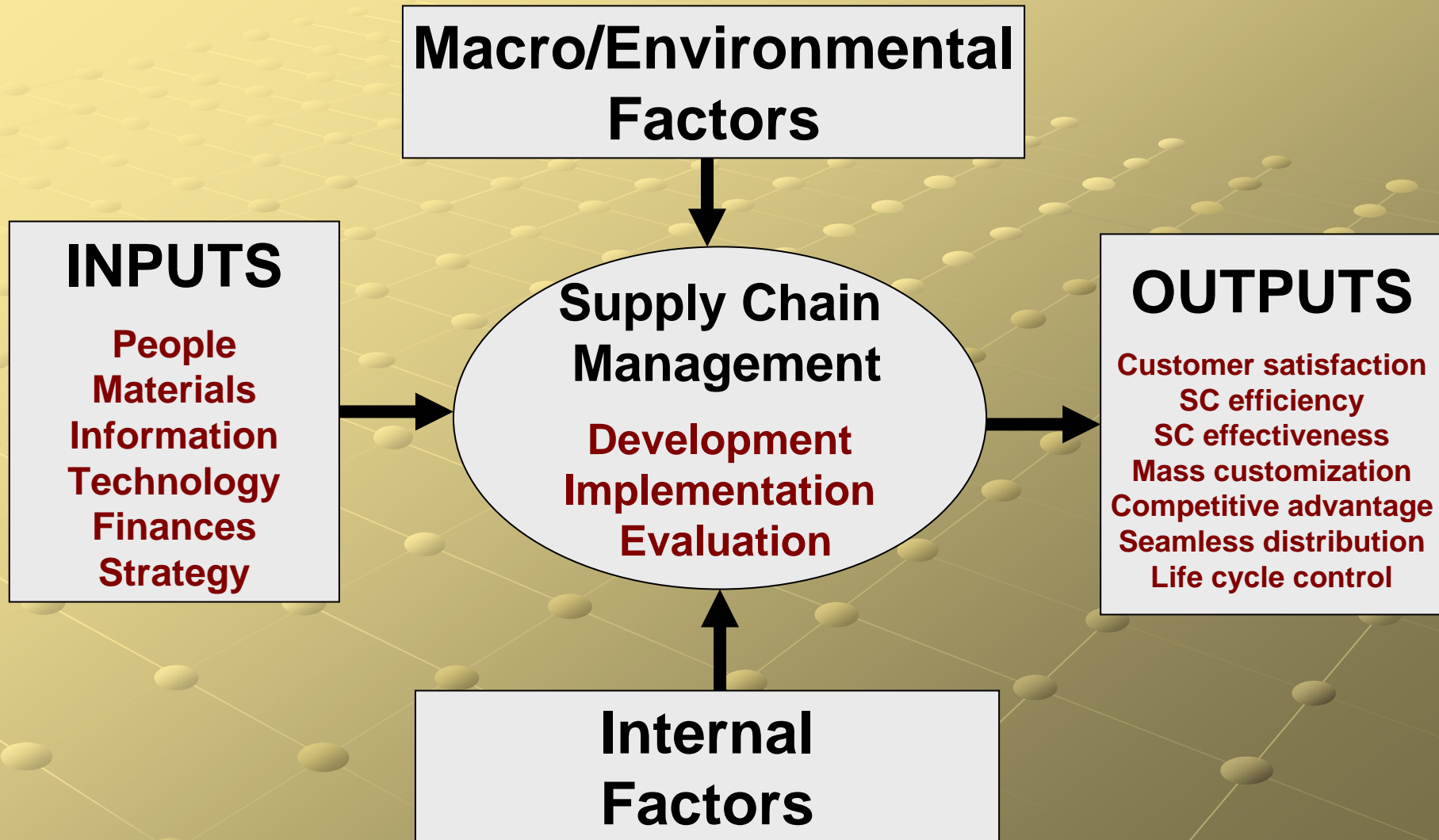
- **Societal benefits (GDP, standard of living)**
- **Costs are minimized resulting in lower costs to consumers**
- **Firms are stronger competitors locally & in the global marketplace**

# Benefits of Integrated SCM

## ● **Micro**

- **Higher customer service levels**
- **Higher profitability to the supply chain & its individual members**
- **More responsive systems & processes**

# A Model of SCM



# Inputs into SCM

## ● People

- Training
- Skill sets

## ● Materials

## ● Information

- Quantity
- Quality

## ● Technology

- Computer
- Information

## ● Finances

- Internal sources
- External sources

## ● Strategy

# Macro/Environmental Factors Impacting SCM

- **Economics**
- **Competition**
- **Legal**
  - **Environmental**
  - **Labor laws**
  - **Trade regulations**
- **Political**
- **Customer demands**

# Internal Factors Impacting SCM

- **Corporate culture**
- **Human resource training & compensation**
- **Infrastructure**
- **Existing technology**
- **Type & scope of information systems**

# Outputs of SCM

- **Customer satisfaction**
- **Supply chain efficiency**
- **Supply chain effectiveness**
- **Mass customization**
- **Sustainable competitive advantage**
- **Seamless distribution**
- **Life cycle control**

# Supply Chain Development & Integration

## ● Difficulties in implementation

- Without good control or management of vendor relationships, SCM implementation does not yield optimal results
- Unclear definitions of SCM result in unclear measurements of success

# Supply Chain Development & Integration

## ● Difficulties in implementation

- **Lack of senior management support & understanding of SCM**
- **Establishing the level of trust needed with your suppliers**
- **Too many unproven SCM software options**

# Supply Chain Metrics & Benchmarks

- **Aligning metrics to strategy**
- **Metric systems make vision statements real**
- **Many companies fall into the trap of having many performance metrics, but they're not linked to actionable plans that drive progress towards company goals**

# Building Blocks of a Successful Metrics Program

- 1. Process, Not Just Functional Metrics**
- 2. Use Balanced Metrics**
- 3. Embed Metrics in Your Culture**
- 4. Link Metrics to Compensation**
- 5. Use Tools & Technology**

# Building Block # 1

## Process, Not Just Functional Metrics

- **Only using functional metrics can lead to sub-optimization**
- **Cross-functional metrics identify & track the measures critical to overall company success**
- **Start with the strategy, not with the metrics**

## **Building Block # 2**

### **Use Balanced Metrics**

● ***Balanced scorecard* approach using a combination of financial & non-financial metrics**

- **What level of financial performance or return is required?**
- **At what business processes must the firm excel to satisfy its customers (operational)?**

## Building Block # 2

### Use Balanced Metrics

● ***Balanced scorecard*** approach using a combination of financial & non-financial metrics

- **How will the firm use its people to sustain its ability to change & improve?**
- **How should the firm market to its customers?**

# Examples of Balanced Metrics

	<b>Process Measures</b>	<b>Strategic Measures</b>
<b>Reliability</b>	<b>Order cycle time variability</b> <b>Forecasting accuracy</b>	Perfect order fulfillment Overall customer satisfaction
<b>Flexibility &amp; Responsiveness</b>	<b>Backlog &amp; back orders</b> <b>Order cycle time</b>	Forecasting/planning cycle time % expedite requests fulfilled
<b>Cost</b>	<b>Logistics costs as % of sales</b> <b>Returns as % of sales</b>	Total supply chain mgt. cost as a % of sales Total delivered cost
<b>Asset Utilization</b>	<b>Days of inventory in supply chain</b> <b>Dedicated inventories</b>	Cash-to-cash cycle time Net asset T/O, ROA

## Building Block # 3

# Embed Metrics in Your Culture

- **Employees must understand their role in achieving the company's goals**
- **Measurement cannot be used as a tool for continuous punishment; rather it must be used continuous improvement**

## Building Block # 3

# Embed Metrics in Your Culture

- **Frequent review of metrics enable employees to make timely corrections/changes**
- **Show employees how their work affects the overall business**

## **Building Block # 4**

# Link Metrics to Compensation

- **Adopt a process view of measurement to drive desired behavior**
- **Link incentive compensation to specific target measures (i.e., achieve a rating of “X” & receive a bonus of “Y”)**

## Building Block # 4

# Link Metrics to Compensation

- **Use a combination of metrics, both individual & group/team/department**
- **Use annual review process to structure measurable goals for employee advancement**

# Building Block # 5

## Use Tools & Technology

- **Use effective data warehousing**
- **Use systems that produce aggregate views with few metrics for the CEO while maintaining the data needed to support root cause analysis questions that will come down from management**
- **Utilize systems that identify & help to correct errors**

# General SCM Metrics Overview

## Output Measures

- Cost
- Time
- Quality
- Flexibility
- Reliability

## Outcome Measures

- Customer satisfaction
- Market share
- Image
- Profitability

- **Common metrics & databases**
- **Compatible SCM goals & objectives**
- **Seamless communications systems & linkages**

# Future Developments in SCM

- **Further globalization of competition & markets**
- **“Windows of opportunity” will continue to develop, but will be shorter-lived**

# Future Developments in SCM

- **Resource acquisition & allocation will become more global in scope & design**
- **Mass customization will continue to become more important**

# Future Developments in SCM

- **Dependability & flexibility will become “givens” or basic requirements for competing, while innovation will be the differentiator**
- **Continuing pressure to reduce overall supply chain costs**

# Future Developments in SCM

- **Reverse logistics will become a more important part of SCM as firms adopt life cycle & product stewardship perspectives**
- **The entire supply chain will become more transparent because of new technology & rapid communication capabilities**

# Future Developments in SCM

- **Order cycle times will compress further requiring supply chains to become more agile & responsive**
- **Standard formats will dominate supply chain software & information systems**

# Future Developments in SCM

- **Products & processes will become more complex, requiring higher quality systems, people & strategies**
- **Supply chains will have more interchangeable parts, that is, when market conditions change, individual elements of the supply chain will be able to be replaced &/or modified easily & quickly**

# Future Developments in SCM

- **Security issues will continue to impact supply chain costs, reliability & performance**
- **Automation of information & data retrieval will continue to replace “human intervention”**

# Future Developments in SCM

- **Inventory buffers at supply chain linkages will continue to diminish as information substitutes for inventory**
- **True collaboration & partnerships will be more of a reality between supply chain member firms**

# Future Developments in SCM

- **Producers or creators of products will adopt product stewardship models of supply chain management in greater numbers**
- **Forecasting will become more accurate because shorter time horizons will be used as result of more rapid information availability**

# Future Developments in SCM

- **Increasing manufacture or assembly of products nearer to final customers**
- **Compensation of managers will be tied more closely to activities & processes not under their direct control (making coordination & collaboration much more important)**

# A Concluding Thought

**Speed will be the primary driver of supply chain design, development, implementation, & evaluation. Customers, competitors & stakeholders will demand it!**