

The Supply Chain

Increasing Value through Process Improvement

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July 2003

What is a supply chain ?

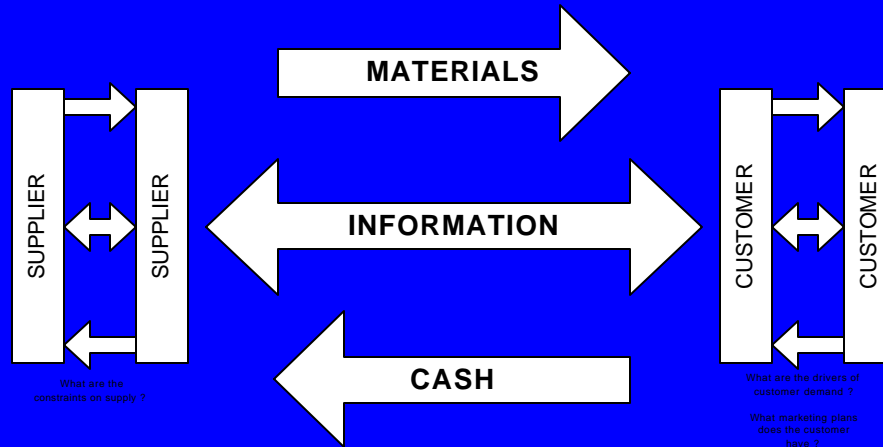
Definition

The **supply chain** is the total flow of

- *Materials*
- *Information*
- *Cash*

through a business network, all the way from the suppliers' suppliers to the customers' customers.

as a picture:
The Complete Supply Chain



The way the supply chain works

- **Materials** flow from suppliers through your operation (where they may be transformed into other materials), then to customers and to your customers' customers
- **Cash** flows from customers through your operation to your suppliers (and you should be keeping some too, to pay for your efforts and to increase the value of your operation).
- **Information** flows both ways through the system.
- **Information** gives visibility to the whole system.

How does the supply chain add value ?

- Standard business answer:
the lowest cost to do whatever is needed to give value to my customers.

What does that mean ?

- Lowest cost of materials
- Lowest cost of handling and processing
- Minimised assets employed
- Fastest cash recovery

combined in a package that lets you maintain and grow your market position...

How do the supply chain elements work within the whole system ?

- The **processes** inside the chain must work
- **Information** is critical
- **Information** must match the physical and transactional processes in real time
- **People** need to know how the processes and information are tied together

The cost of dysfunctional processes & information is

- **Poor & costly supply chain performance**
 - Late or missed deliveries
 - Stockouts
 - Mistakes
 - Added costs
 - Upset customers!!!
- **Inefficient Asset Utilisation**
 - Too much inventory, often of what is not wanted
 - Poor cash flow

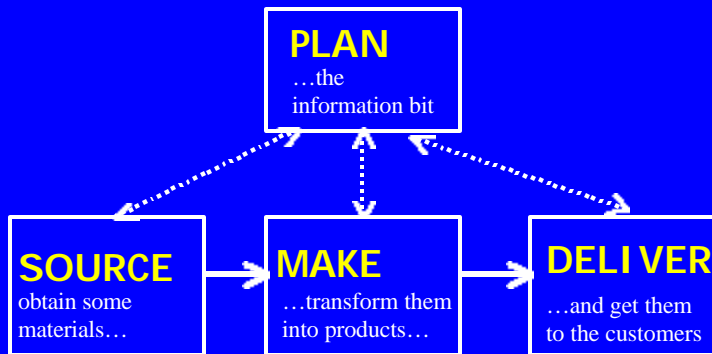
= **Overall worse ROI**

How do you get best value from a supply chain ?

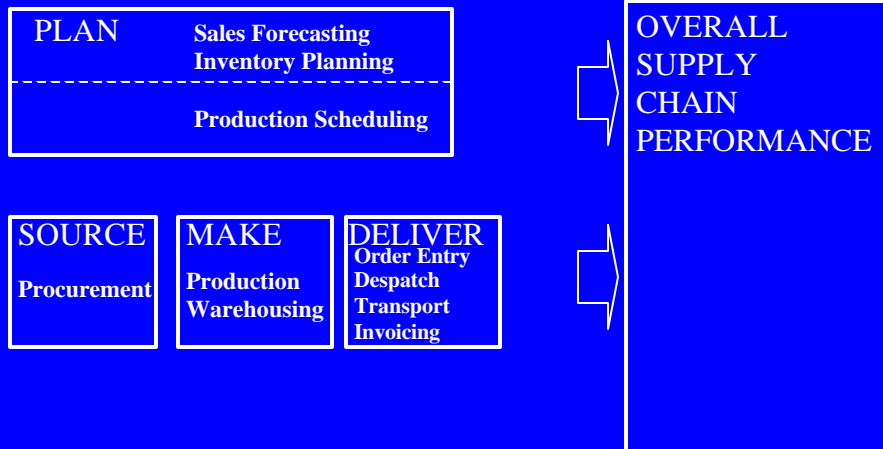
1. **Understand** the processes
2. **Improve** and **reorganise** the processes so they match the best-in-class practice
3. **Match** the information to the processes
4. **Measure** the processes & information performance

Guide your **people** to do this so they understand how it all ties together

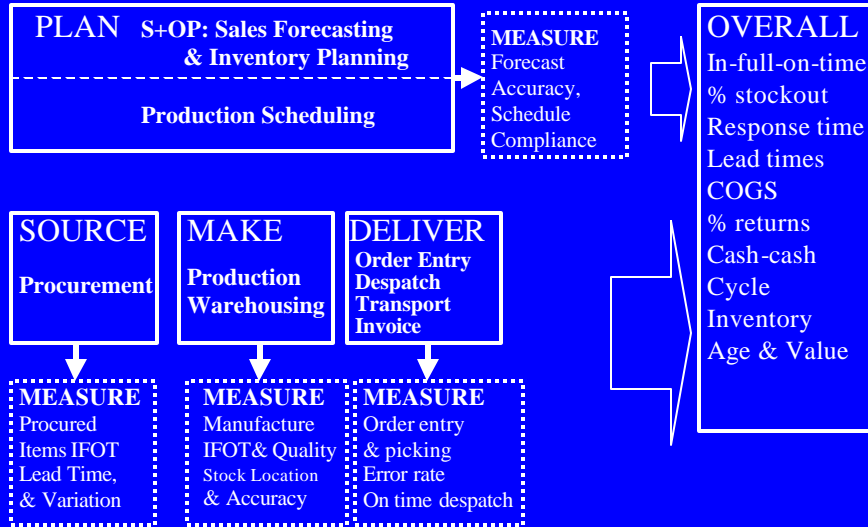
Supply Chain processes fit into 4 areas...



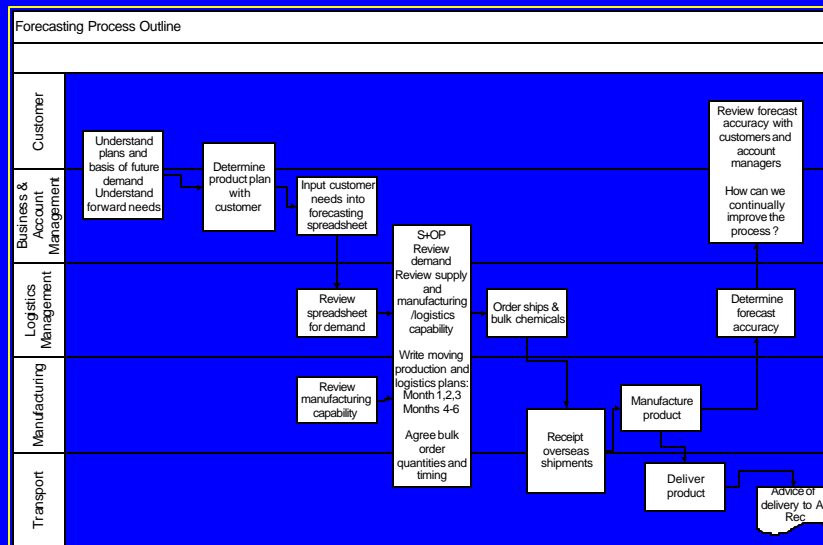
In more detail...



...and with measurements...



A typical single process...



What else is needed ?

- CEO or Executive needs to be seen to drive the improvement process
- Systems understanding critical
- Ensure everyone understands the system structure
- Ensure everyone understands their role and what each has to do for the whole system to work

Organisational Culture Issues

2 levels:

My place in the supply chain:

Definition of roles in the organisation "big picture"

What things need to be done in each job

How what I do (or don't do) affects others

Systems behaviour (eg "Beer Game")

Opinion leaders

Gain their support

Educate specially in the need for the company to improve

Typical Performance Levels: Manufacturing / Distribution Business

1. In full, on- time delivery (IFOT)
> 97% overall; > 99% for top 10
2. Stock-outs < 1% as potential sales
3. Sales Forecast Accuracy > 80%
4. Order entry 100% on screen
5. Procurement IFOT > 90%
6. Production Schedule Compliance > 90%
7. Inventory Quantity, Location > 98%
8. Inventory Reservation ON
9. Inventory Asset Value < 15% sales

Can we work out why we miss orders ?

Typical example:

- 25,000 orders per year
- ~2,000 orders per month or 100 per day
- At 95 % IFOT ~100 failures per month
- Enough to give a **pattern** of failures by cause
- **Analyse** and address each **root cause**
- **Prioritise** by cost to fix and value of fix

Typical Major Benefits of Supply chain process improvement

- Sustained Improvement in Sales
- Sustained improvement in profit & ROI
- Problems can be fixed without necessarily major capital or big IT spend
- Culture Shift towards "can-do" attitude: ie success in this project gave confidence that others could be solved
- Step change in willingness to take responsibility to initiate change

Measurable Benefits from one Real Project...

- 15% reduction in Warehouse & Distribution Personnel
- 10% reduction in Total Inventory
- \$250 k ongoing saving by eliminating Stocktakes (changed to cycle counting)
- Profit went up (\$4m) and stayed up