

Gestione delle scorte

- CODP: Costumer Orders Decoupling Point-



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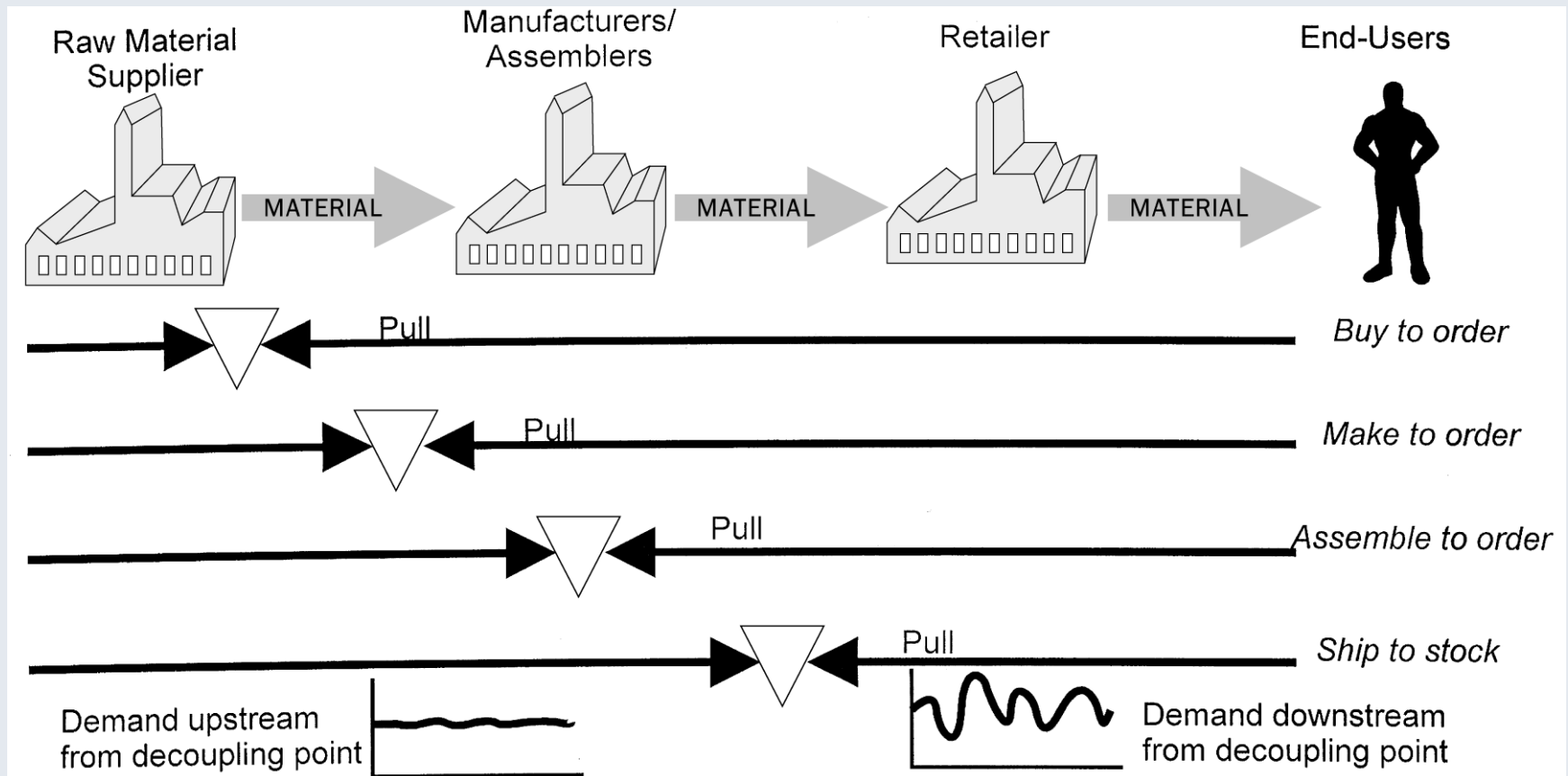
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Customer Orders Decoupling Point – C.O.D.P

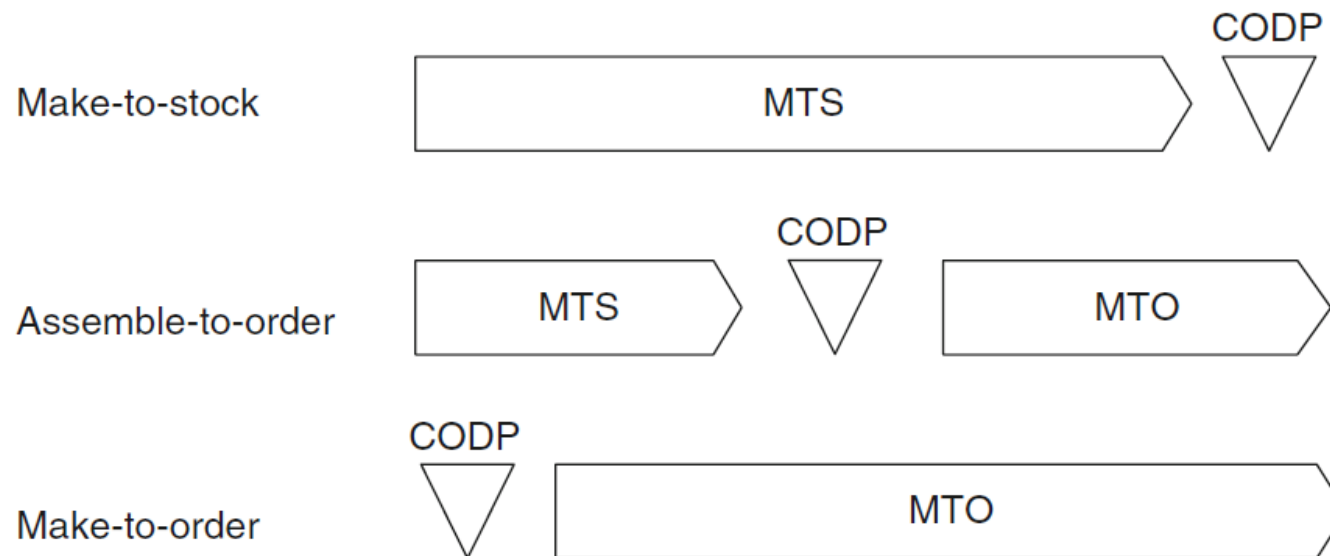


Source: Hoekstra and Romme (1992)

Customer Orders Decoupling Point – C.O.D.P

- **decoupling points** : The locations in the product structure or distribution network where inventory is placed to create *independence between processes* or entities. Selection of decoupling points is a strategic decision that determines customer lead times and inventory investment;
- **control points** : In the theory of constraints, strategic locations in the logical product structure. Detailed scheduling instructions are planned, implemented, and monitored at these locations.;
- **order penetration point** : The key variable in a logistics configuration; the point (in time) at which a product becomes earmarked for a particular customer. *Downstream from this point, the system is driven by customer orders; upstream processes are driven by forecasts and plans.*
- **postponement** : A *product design* strategy that shifts product differentiation closer to the consumer by postponing identity changes, such as assembly or packaging, to the last possible supply chain location.

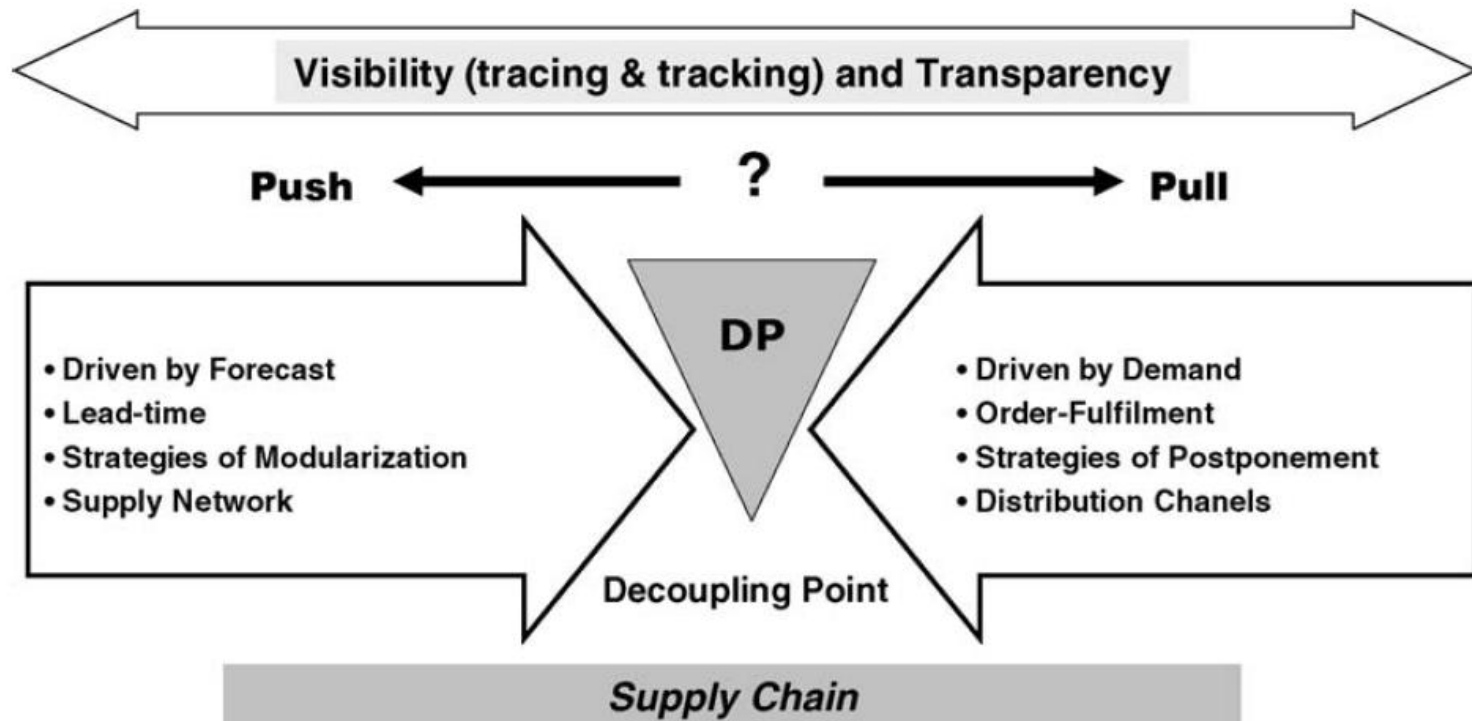
Customer Orders Decoupling Point – C.O.D.P



MTS vs MTO

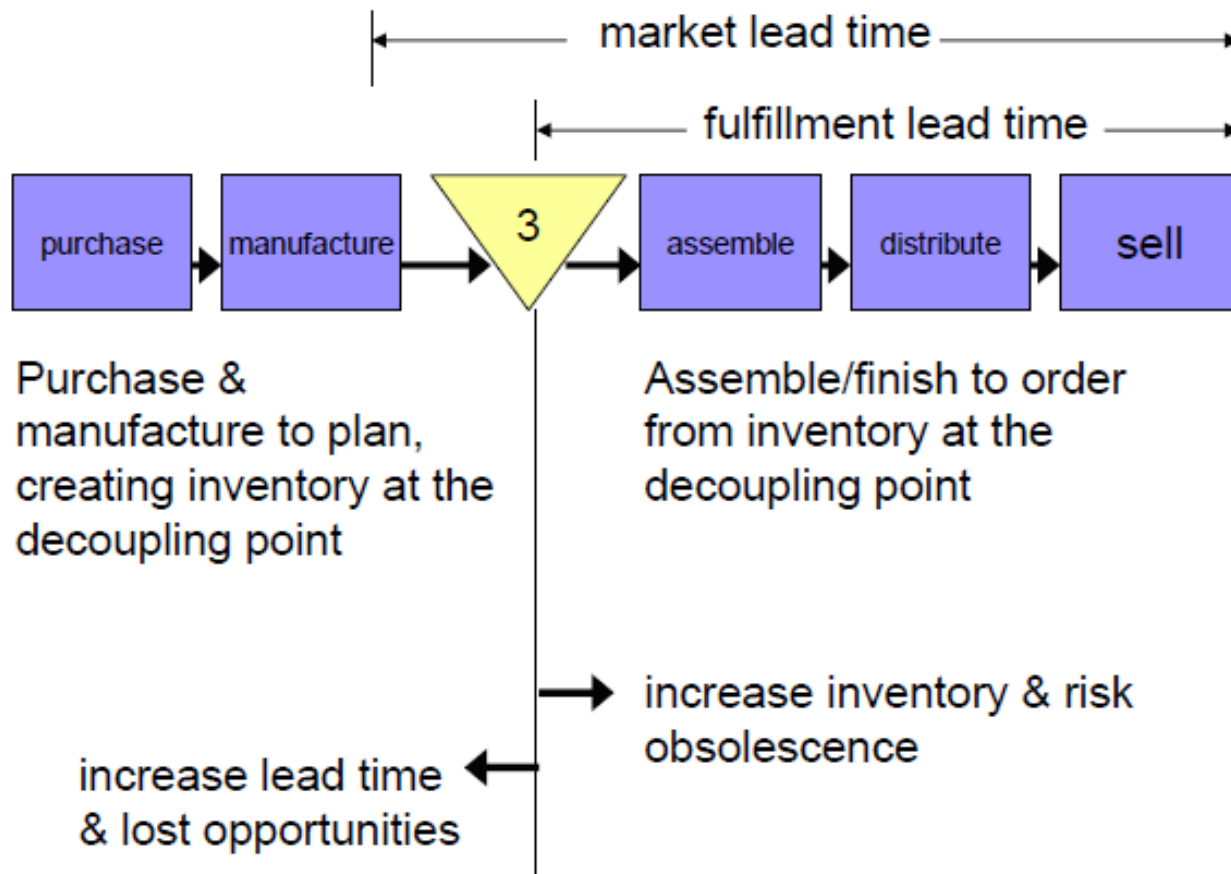
Features	MTS and upstream the CODP	MTO and downstream the CODP
Product characteristics	Standard components, high volumes, predictable demand	Customised, high variety, wide range, unpredictable demand
Order winners	Price	Delivery speed, flexibility
Qualifiers	Quality, delivery reliability	Quality, delivery reliability
Supply chain design	Physically efficient	Market responsive
Lean versus agile	Lean	Agile
Manufacturing task	Provide low cost manufacturing, maintain high stock availability at the CODP	Manufacture to customer specification, achieve short and reliable lead times
Key properties	Productivity	Flexibility
Improvement priorities	Cost reduction	Lead time reduction

C.O.D.P. tradeoffs



C.O.D.P. tradeoffs

Tradeoffs



Value Perceptions

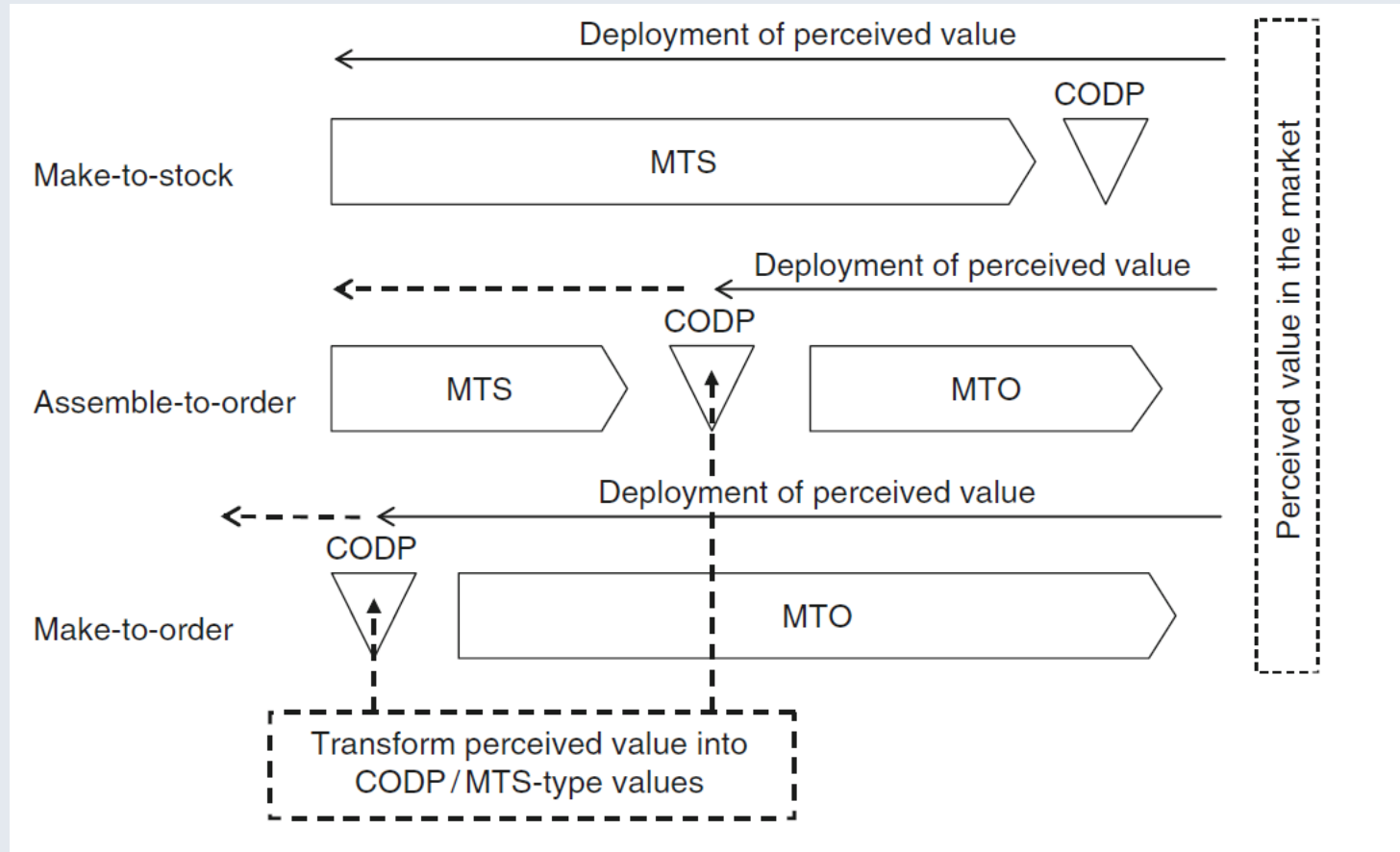
$$\text{Value} = f(Q; D; P; F; X)$$

- Q = quality (conformance to specifications),
- D = delivery (speed and reliability),
- P = price,
- F = flexibility (volume, product mix, and design – in support of customization and product range),
- X = other aspects non - manufacturing related aspects may include design, brand, image, etc.

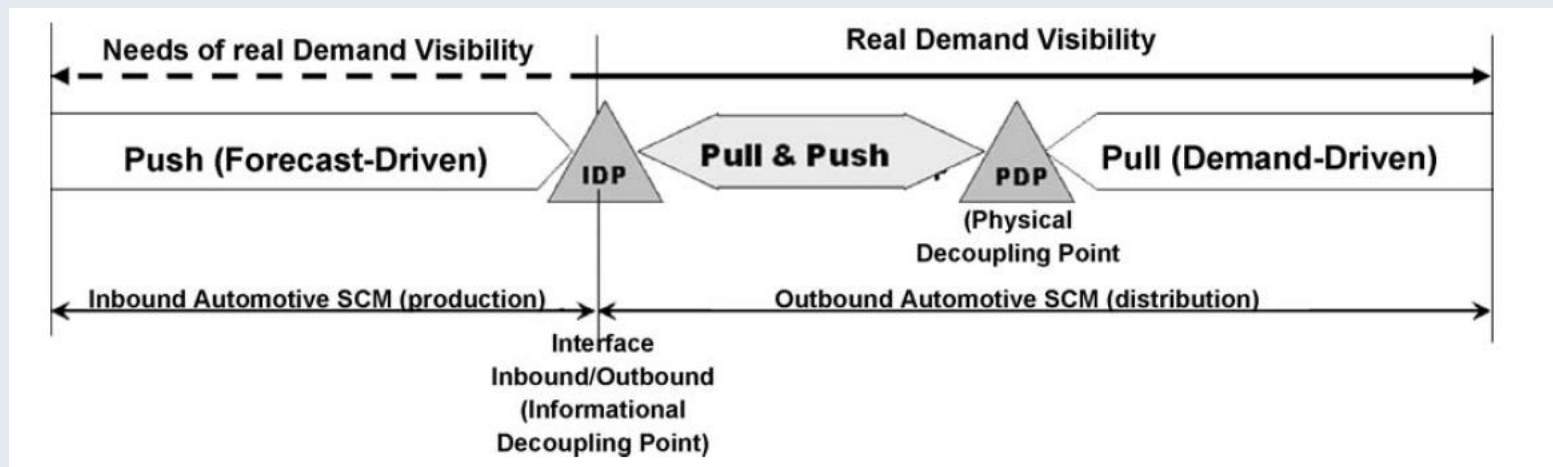
$$\text{Value (MTS)} = f(Q; D; \mathbf{P}; F; X)$$

$$\text{Value (MTO)} = f(Q; D; P; \mathbf{F}; X)$$

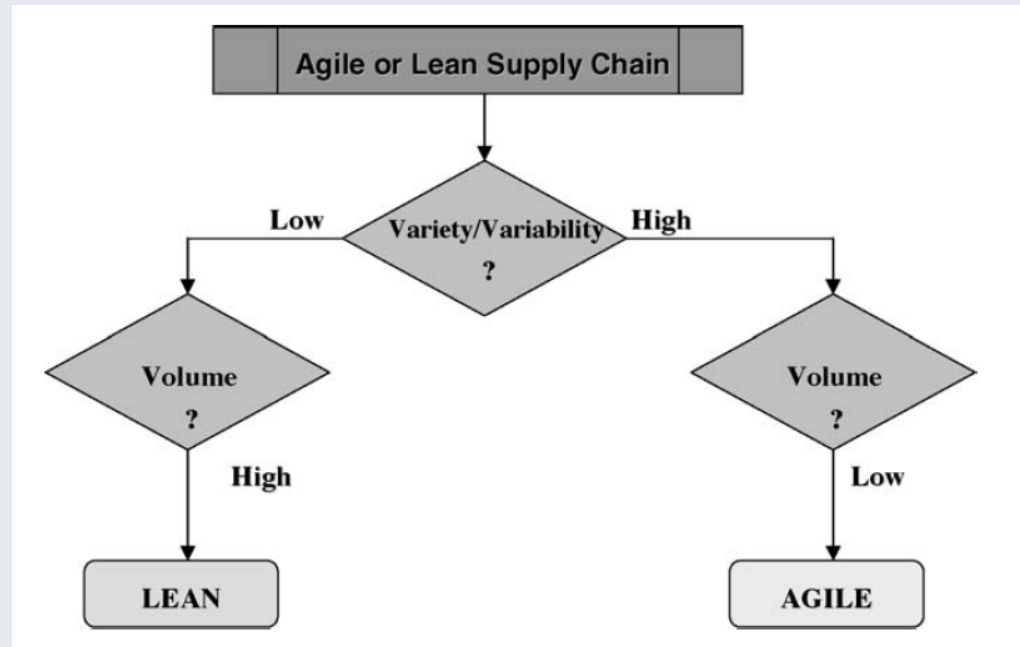
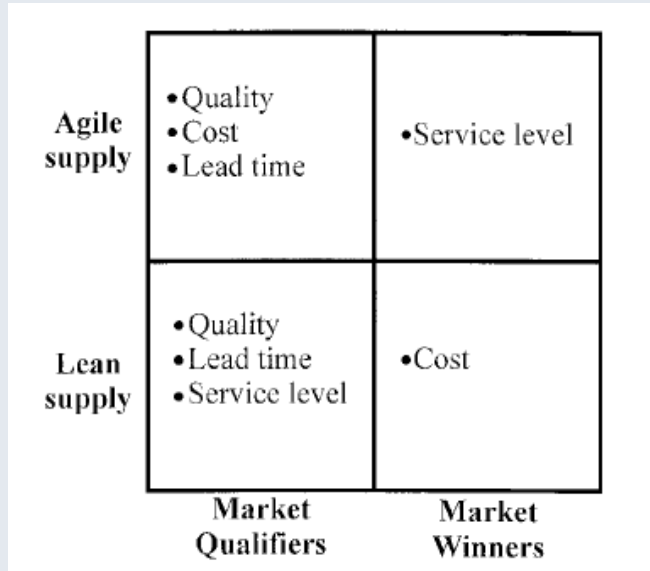
Value Perceptions



Double C.O.D.P.



LEAN vs AGILE



LEAN vs AGILE

TCT Strategy	Typical Techniques	Specific Examples	Relative Application in	
			Lean	Agile
Industrial engineering improvements	- Set up time reduction - Handling Methods - Product Design.	- Single minute exchange of dies. - Container design and conveyor use. - Design for manufacture		
Operations engineering improvements	- Kanban. - JIT supplies - Shared call off information	- Production controlled via actual orders. - Greater frequency and smaller quantities - Improved service levels through lower forecast errors		
Information technology improvements	- Quicker and more accurate data capture - Electronic data interchange.	- Bar-coding on order paper work and/or materials packaging. - Orders, funds transfer or engineering designs transferred instantly		
Production engineering improvements	- Integration of processes. - Sequencing of processes. - Alternative manufacture.	- Combine two processes into one. - Re-sequencing to postpone variety. - Develop more appropriate production processes.		



Dominant



Supportive