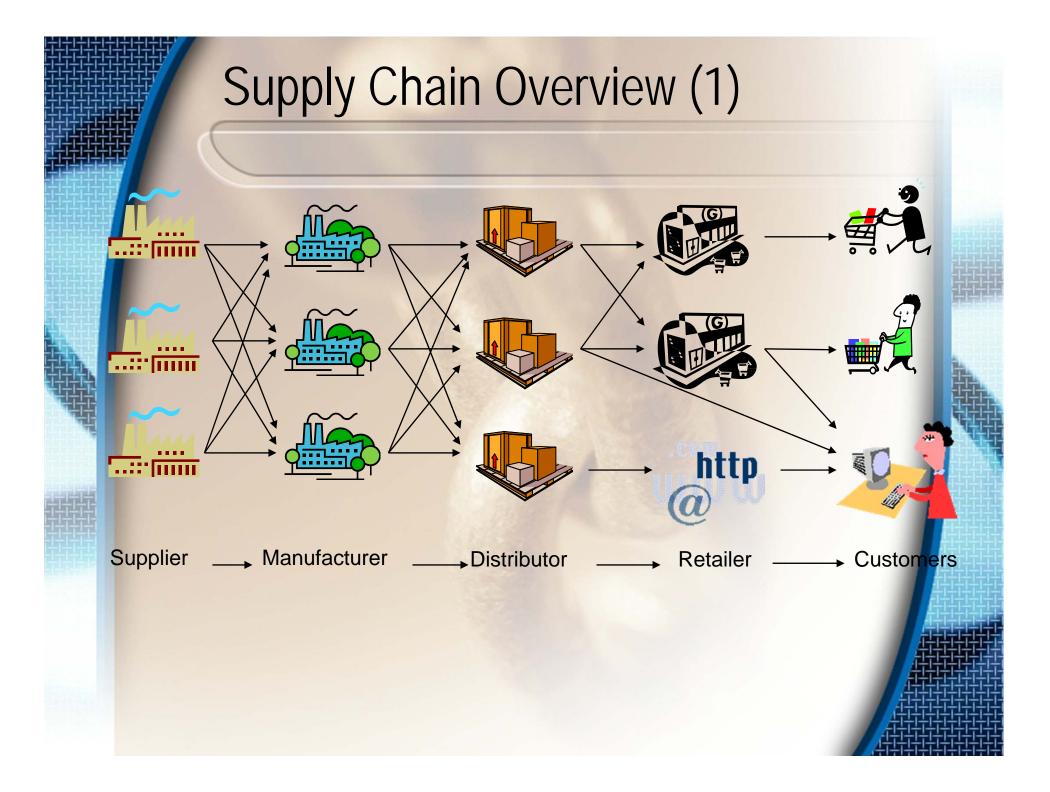
Supply Chain Management (SCM)

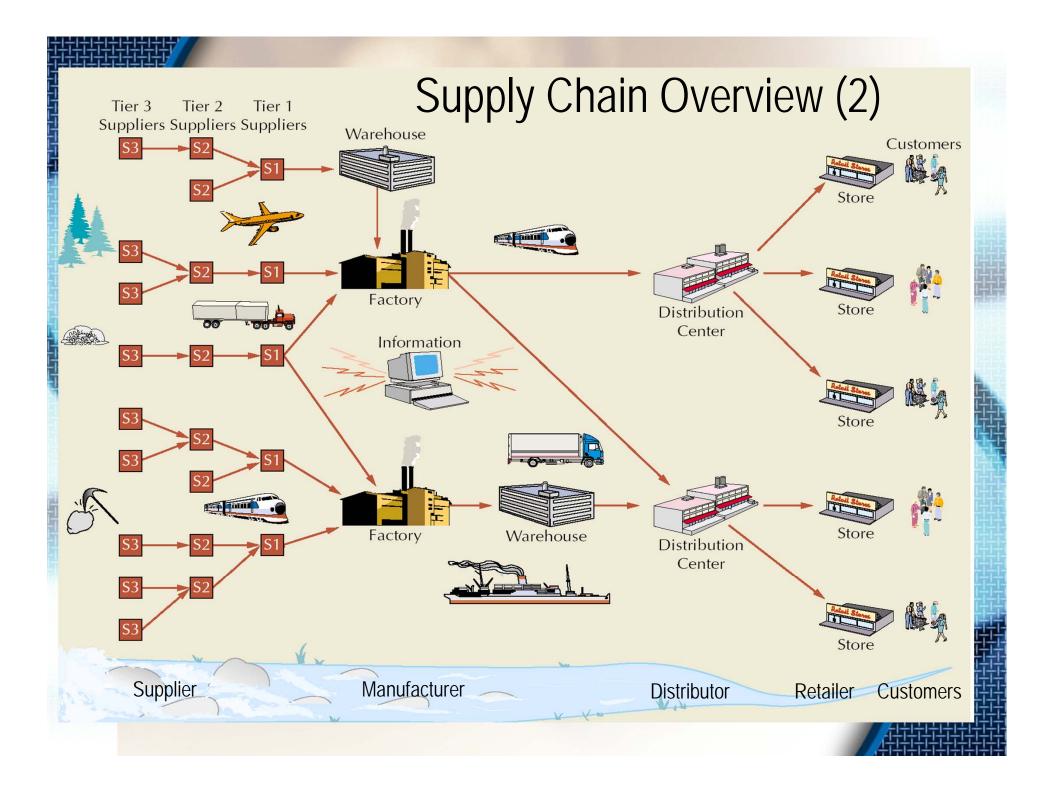


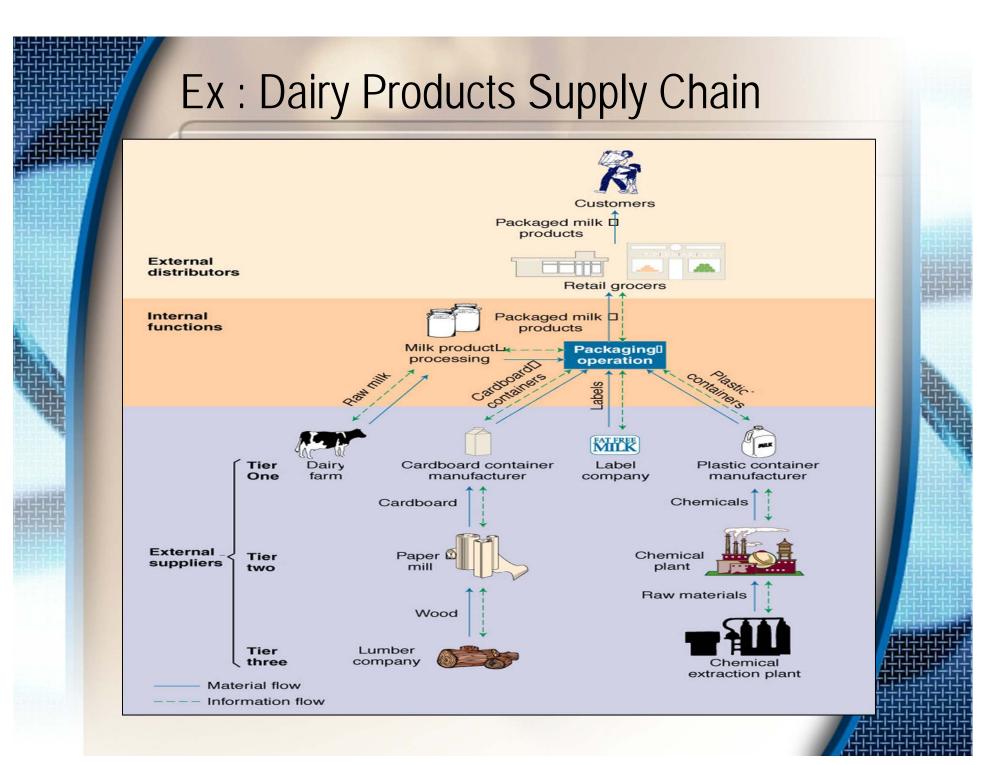
Program Studi Teknik Informatika Fakultas Teknik & Ilmu Komputer Universitas Komputer Indonesia

What is a Supply Chain?

A **supply chain** is the system of organizations, people, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform raw materials and components into a finished product that is delivered to the end customer.

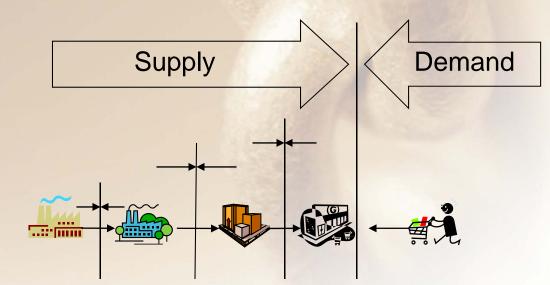






Supply Chain Management

Supply Chain Management is the design and management of processes across organizational boundaries with the goal of matching supply and demand in the most cost effective way.



Mission impossible: Matching Supply and Demand

Why so Difficult to Match Supply and Demand?

- Uncertainty in demand and/or supply
- Changing customer requirements
- Decreasing product life cycles
- Fragmentation of supply chain ownership
- Conflicting objectives in the supply chain
- Conflicting objectives even within a single firm
 - Marketing/Sales wants: more FGI inventory, fast delivery, many package types, special wishes/promotions
 - Production wants: bigger batch size, depots at factory, latest ship date, decrease changeovers, stable production plan
 - Distribution wants: full truckload, low depot costs, low distribution costs, small # of SKUs, stable distribution plan

Model Supply Chain

Manufacturer

- Financial / marketing-driven forcast
- Master Scheduling
- Replenishment based on distribution center inventory (preset safety stock level)
- Manual purchase order and invoicing

Retail Distribution Center

- Order point based on warehouse inventory (safety stock level) and historical forecast
- Deals, promotions and forward buying
- Manual purchase orders, information entry and output

Retail Store

- Order point based on shelf inventory (safety stock level) and forecasts
- Promotions
- Manual entry of items to be ordered

Customer Purchase Merchandise

Push–Based Supply Chain

Manufacturer

- Demand driven forcast based on POS data and product movement
- Short cycle manufacturing
- Advanced shipping notice and EDI services
- Bar code scanners and UPC ticketing

Retail Distribution Center

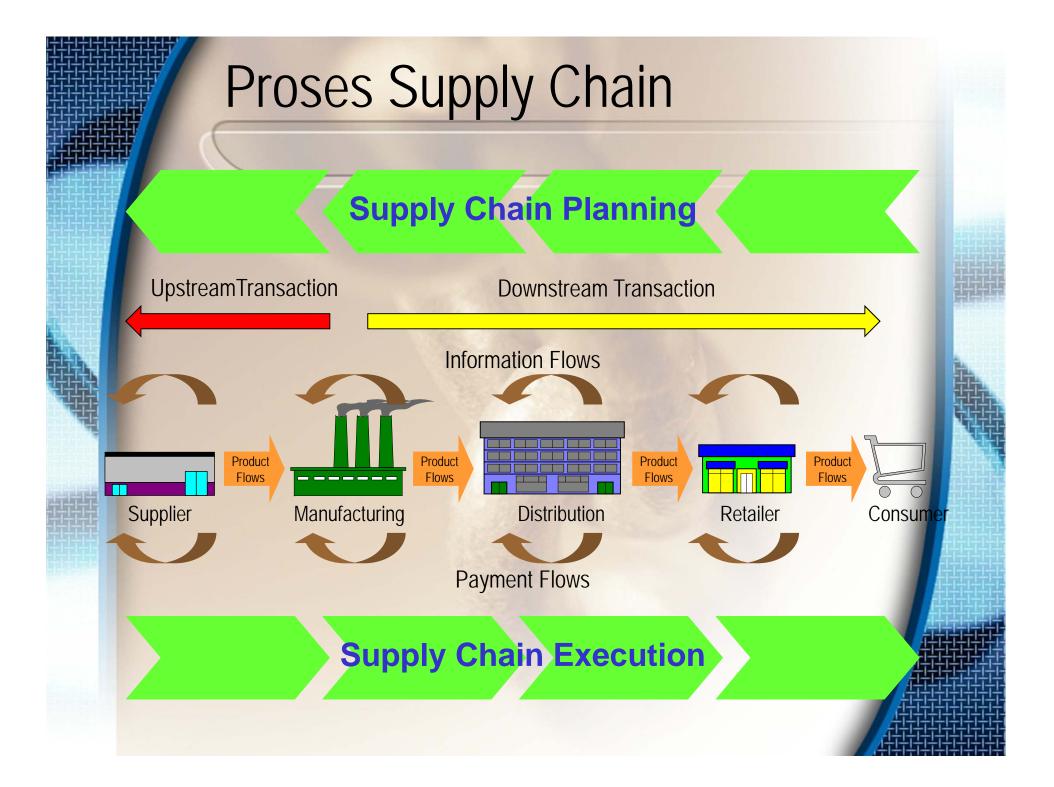
- Automatic replenishment
- Shipping container marking
- Cross–dock receiving
- EDI services

Retail Store

- POS data collection
- Perpetual inventory checks
- Automatic replenishment using EDI services

Customer Purchase Merchandi

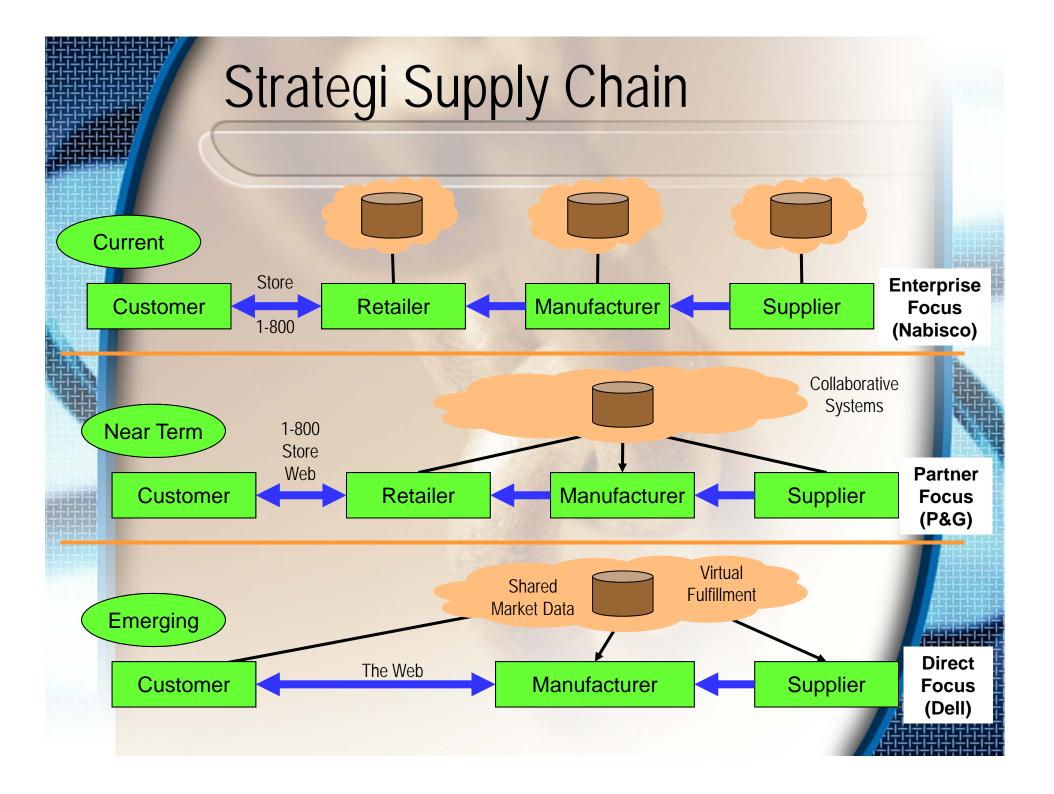
Pull–Based Supply Chain/

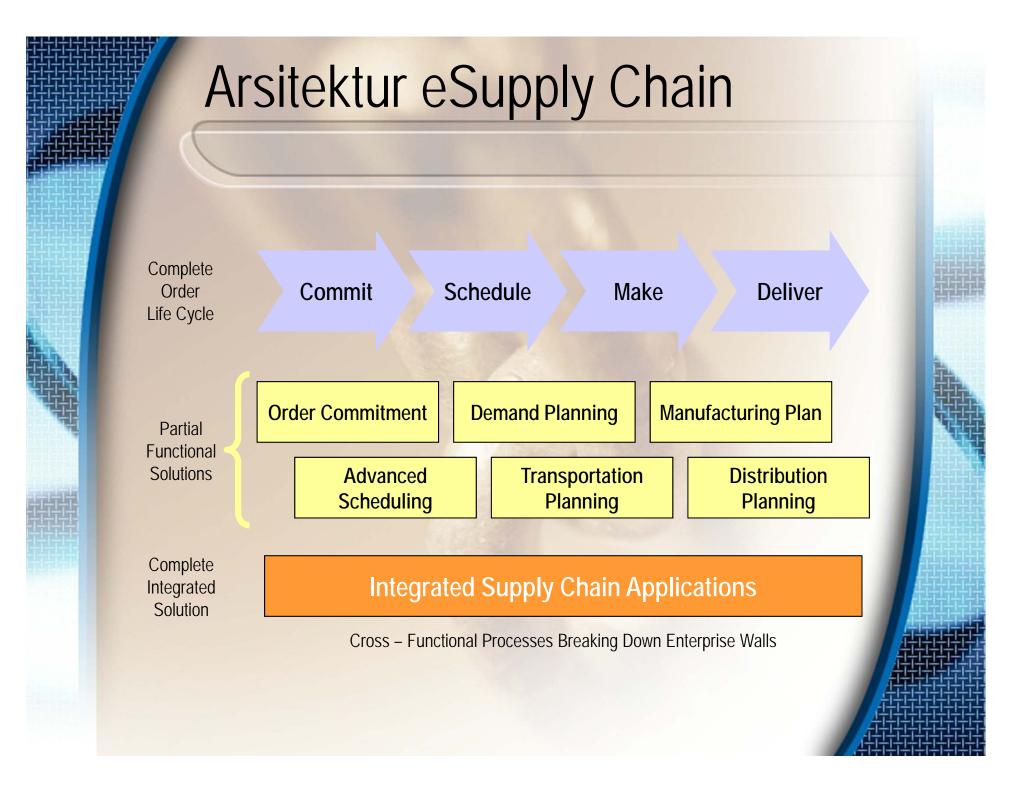


Evolution of Supply Chain Management

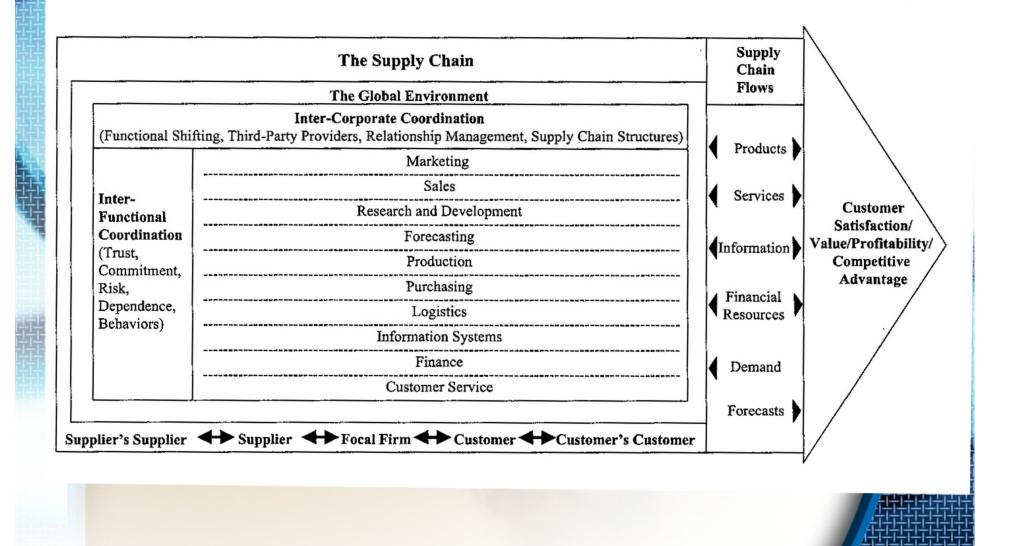
Activity fragmentation to 1960	Activity Integration 1960 to 2000	2000+
Demand forecasting		
Purchasing		
Requirements planning		
Production planning	Purchasing/ Materials	
Manufacturing inventory	Management	
Warehousing		-
Material handling	Logistics	
Packaging		
Finished goods inventory	Physical	Supply Chain Management
Distribution planning	Distribution	
Order processing		Ē
Transportation		臣
Customer service		
Strategic planning		
Information services		
Marketing/sales		
Finance		







Supply Chain Schematic



Aplikasi Piranti Lunak SCM

Major Functional Areas		Set of Key Activities in Each Functional Areas	
	Manufacturing	Engineering and product configuration, production planning and cost management, production execution and quality management	
	Logistics	Purchasing and order management, distribution, inventory and warehousing	
	Financials	General ledger, payables and receivables, billing, budgets and asset management	
	Marketing	Advertising, sales, order management, customer service and support and market research and strategy	
	HRMS	Payroll management, time and labor management, benefits administration and pension administration	

Bullwhip Effect in SCM

- Upstream members must react to the demand
- Slightest change in customer demand can ripple through the entire chain

