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Information Technology in a Supply Chain

*PowerPoint presentation to accompany
Chopra and Meindl Supply Chain Management, 5e*



Learning Objectives

1. Understand the importance of information and information technology in a supply chain
2. Know at a high level how each supply chain driver uses information
3. Understand the major applications of supply chain information technology and the processes that they enable



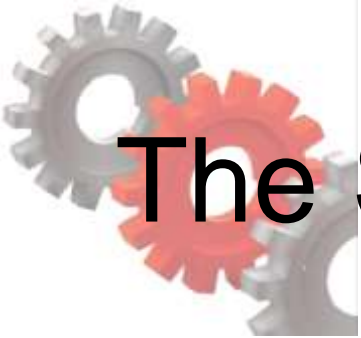
Role of IT in a Supply Chain

- Information provides the foundation on which supply chain processes execute transactions and managers make decisions
- Hardware, software, and people throughout a supply chain that gather, analyze, and execute upon information
 1. Information must be accurate
 2. Information must be accessible in a timely manner
 3. Information must be of the right kind
 4. Information must be shared



Role of IT in a Supply Chain

- Information is used when making decisions about
 1. Facility
 2. Inventory
 3. Transportation
 4. Sourcing
 5. Pricing and revenue management



The Supply Chain IT Framework

- Provides access and reporting of supply chain transaction data
- Advanced systems layer a level of analytics that uses transaction data to proactively improve supply chain performance
- Enterprise software forms the foundation of a supply chain IT system



The Supply Chain Macro Processes

- Customer Relationship Management (CRM)
- Internal Supply Chain Management (ISCM)
- Supplier Relationship Management (SRM)
- Rest on Transaction Management Foundation (TMF), basic enterprise resource planning (ERP) systems
- When enterprise performance is closely linked to supply chain performance, firms must focus on macro processes



The Supply Chain Macro Processes

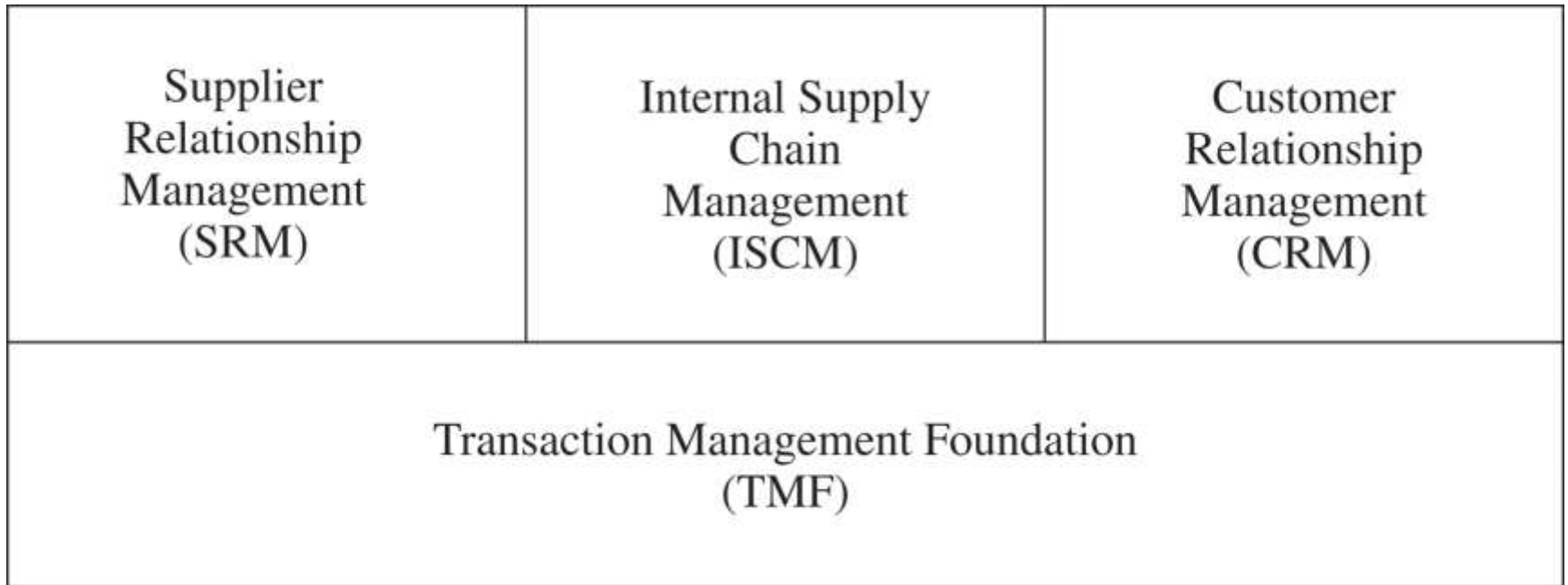
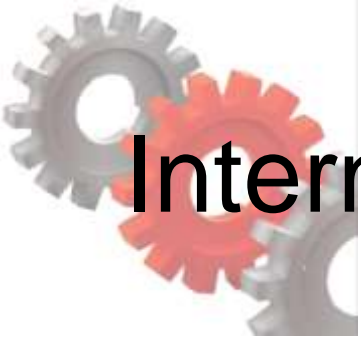


Figure 17-1



Customer Relationship Management

- The processes that take place between an enterprise and its customers downstream in the supply chain
- Marketing
- Sell
- Order management
- Call/service center



Internal Supply Chain Management

- Strategic Planning
- Demand Planning
- Supply Planning
- Fulfillment
- Field Service
- There must be strong integration between the ISCM and CRM macro processes



Supplier Relationship Management

- Design Collaboration
- Source
- Negotiate
- Buy
- Supply Collaboration
- There is a natural fit between ISCM and SRM processes



Supplier Relationship Management

SRM	ISCM	CRM
Design Collaboration	Strategic Planning	Market
Source	Demand Planning	Sell
Negotiate	Supply Planning	Call Center
Buy	Fulfillment	Order Management
Supply Collaboration	Field Service	
TMF		

Figure 17-2



The Transaction Management Foundation

- Early ERP systems focused on transaction management and process automation
- Current focus on improving decision making in the three macro processes



The Transaction Management Foundation

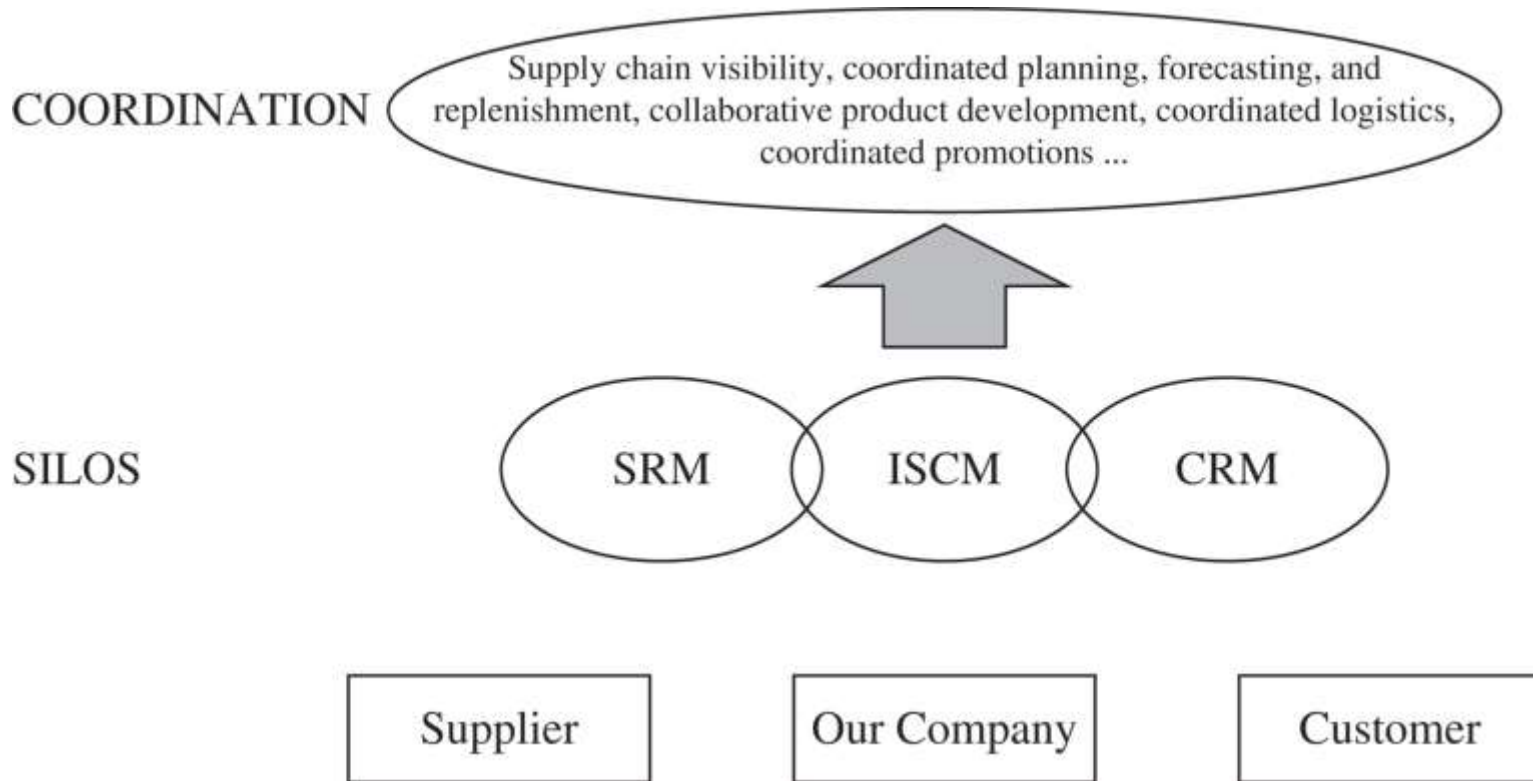
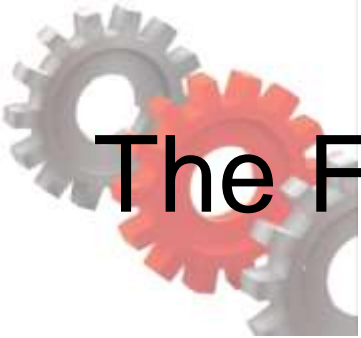


Figure 17-3



The Future of IT in the Supply Chain

- The three SCM macro processes will continue to drive the evolution of enterprise software
- Three important trends
 1. The growth in software as a service (SaaS)
 2. Increased availability of real-time data
 3. Increased use of mobile technology



Risk Management in IT

- Installing new systems
 - Revised business processes
 - Integration
- Problems can shut down the business
 - Software glitches
 - Power outages
 - Viruses



Risk Management in IT

- Mitigating strategies
 - Install new IT systems in an incremental fashion
 - Run duplicate systems to make sure the new system is performing well
 - Implement only the level of complexity that is needed



Supply Chain IT in Practice

1. Select an IT system that addresses the company's key success factors
2. Take incremental steps and measure value
3. Align the level of sophistication with the need for sophistication
4. Use IT systems to support decision making, not to make decisions
5. Think about the future



Summary of Learning Objectives

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