

# MIS: Enterprise Information Systems

IS STRATEGY, DTSL B-2, S-4

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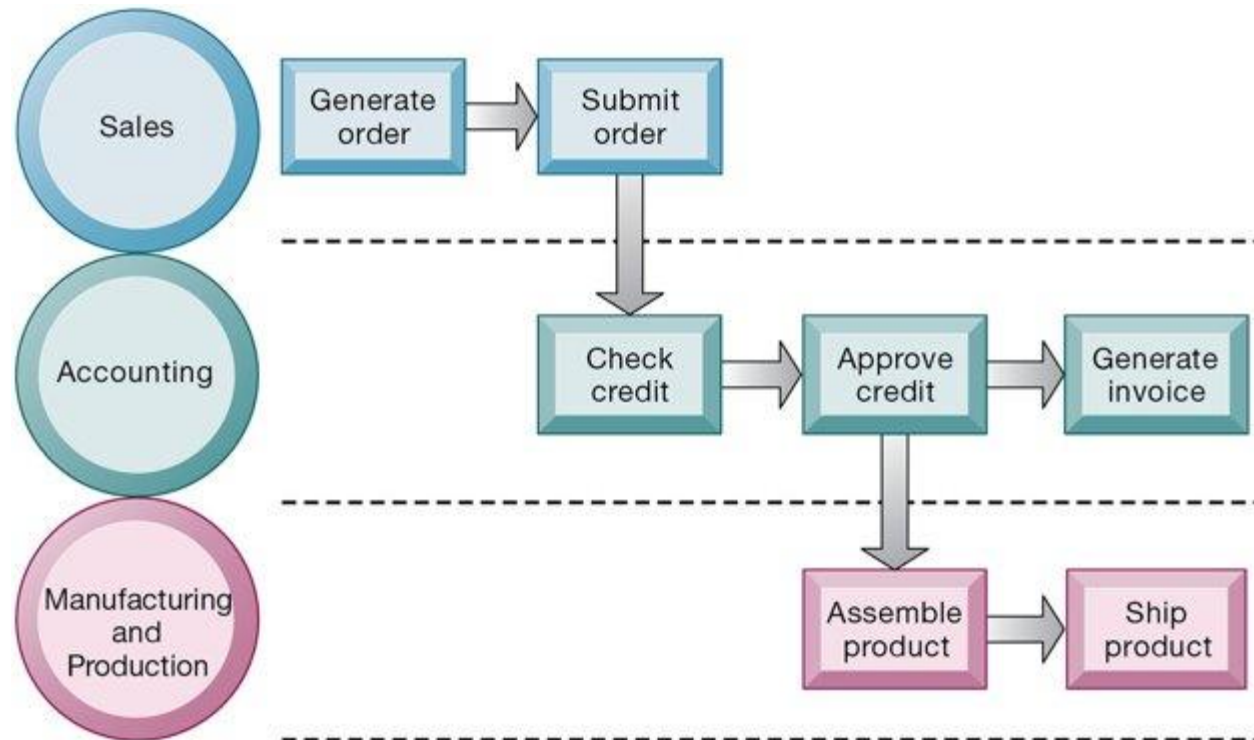
# Business Processes

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- Business processes
  - Flow of material, information and knowledge
  - Logically related set of tasks that define how specific business tasks are performed
  - May be tied to functional area or be cross-functional
- Business
  - Collection of business processes
- Business processes may be assets or liabilities
- Examples (within a functional department)
  - Manufacturing and production - ?
  - Sales and marketing - ?
  - Human Resources - ?

# A Business Process: Order Fulfillment (Across Functional Departments)

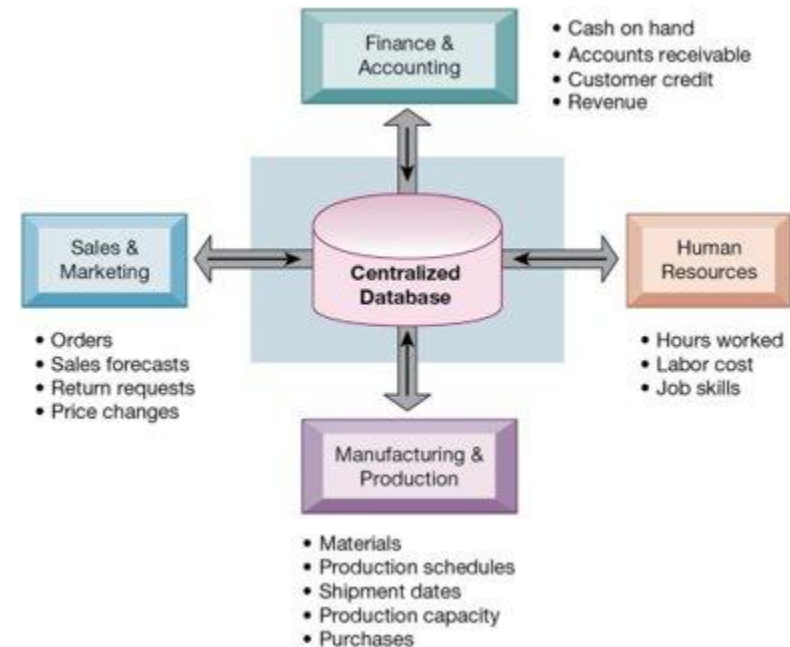
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# What are Enterprise Systems?

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- Also known as enterprise resource planning (ERP) systems
- Based on a suite of integrated s/w modules and a common central database
- Collects data from many divisions of firm for use in nearly all of firm's internal business activities
- Information entered in one process is immediately available for other processes



# Enterprise Software

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- Built around thousands of predefined business processes that reflect best practices
  - Finance and accounting
  - Human resources
  - Manufacturing and production
  - Sales and marketing
- To implement, firms:
  - Select functions of system they wish to use
  - Map business processes to software processes
  - Use software's configuration tables to tailor a particular aspect
  - Too much customization may degrade the performance

# Business Value of Enterprise Systems

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- Increase operational efficiency
- Better decision making
  - By providing firm-wide information
  - By including analytical tools to evaluate overall organizational performance
- To enforce standardization across business units
- Enable rapid responses to customer requests

# Supply Chain

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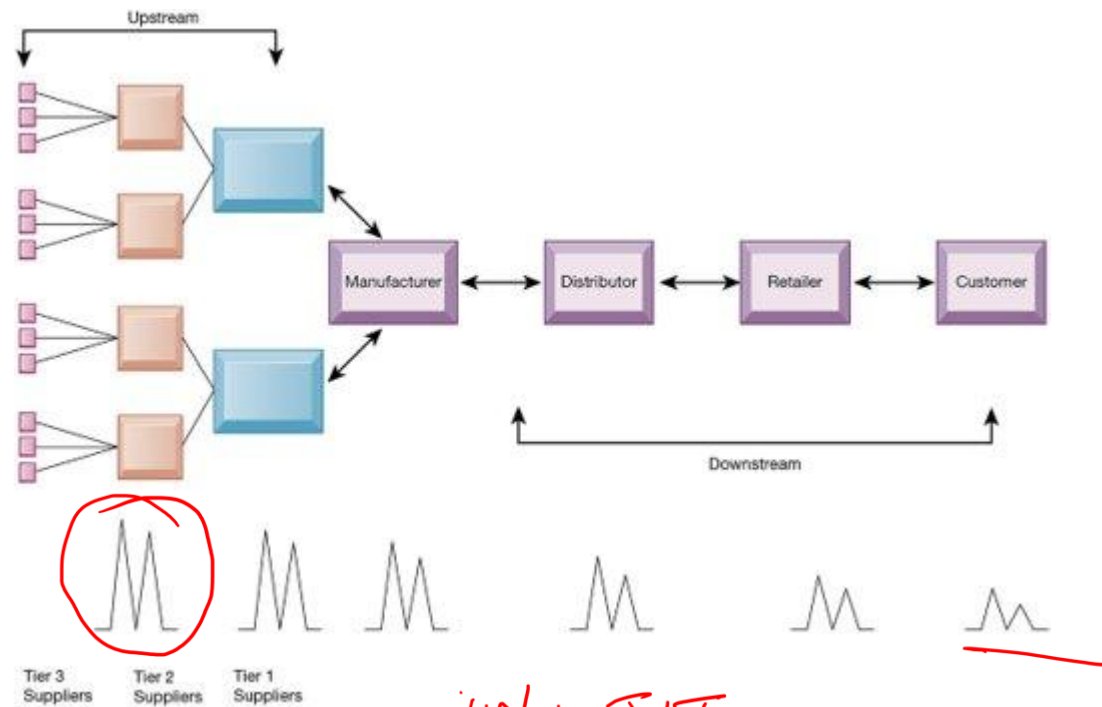
- Network of organizations and processes for:
  - Procuring materials — *up*
  - Transforming materials into products — *cp*
  - Distributing the products — *downstream*
- Upstream supply chain
  - Sourcing, acquiring, and transporting of raw materials
  - Supplier selection, procurement, and inventory management
- Downstream supply chain
  - Finished products distribution – warehousing, transportation, and order fulfillment
- Internal supply chain

# Supply Chain Management

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- Sources of inefficiencies
  - Part shortages, underused plant capacity, <sup>*demand*</sup> excessive finished goods inventory, high transportation costs owing to incorrect or late information
- Inefficiencies cut into a company's operating costs
  - Can waste up to 25 percent of operating expenses
- Safety stock: buffer for lack of flexibility in supply chain
- Bullwhip effect
  - Information about product demand gets distorted as it passes from one entity to next across supply chain
- Just-in-time strategy
  - Components arrive as they are needed
  - Finished goods shipped after leaving assembly line

# The Bullwhip Effect



*just-in-time*

# Supply Chain Management Software

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## ➤ Supply chain planning systems

- Model existing supply chain → *SI & de* <sup>management</sup> <sup>OM</sup> <sup>opera</sup>
- Enable demand planning
- Optimize sourcing, manufacturing plans
- Establish inventory levels
- Identify transportation modes

## ➤ Supply chain execution systems

- Manage flow of products through distribution centers and warehouses
- E.g., WMS

# SCM System: Business Value

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- From push-based to pull-based (build-to-order) model
- Match supply to demand
- Reduce inventory levels
- Improve delivery service
- Speed-up product time-to-market
- Use assets more effectively
  - Total supply chain costs can be 75 percent of operating budget
- Increase sales

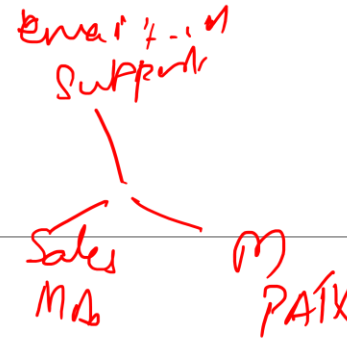
# Customer Relationship Management

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- Knowing the customer
- In large businesses, too many customers and too many ways customers interact with firm
- CRM Cycle
  - Marketing – Identify customers by running marketing campaigns
  - Sales – Generate and classify leads
  - Product – Delivery of products – product price, description etc.
  - Support – resolve customer issues and provide customer support

# CRM Systems

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## ➤ Role of CRM systems

- Capture and integrate customer data from all over the organization
- Consolidate and analyze customer data
- Distribute customer information to various systems and customer touch points across enterprise
- Provide single enterprise view of customers

data definition

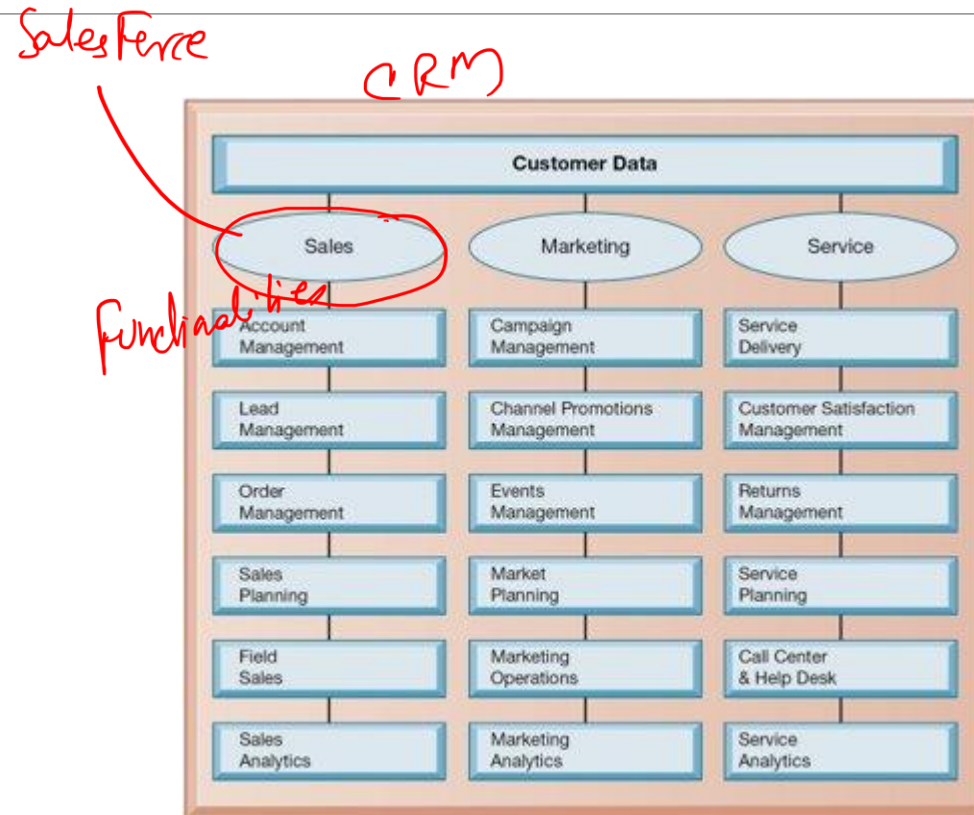
# Customer Relationship Management

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# CRM Software

- Packages range from niche tools to large-scale enterprise applications
- More comprehensive packages have modules for:
  - ✓ Partner relationship management (PRM)
    - Integrating lead generation, pricing, promotions, order configurations, and availability
    - Tools to assess partners' performances
  - ✓ Employee relationship management (ERM)
    - Setting objectives, employee performance management, performance-based compensation, employee training



# Operational & Analytical CRM

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## ➤ Operational CRM

- Customer-facing applications
- Sales force automation – product information & configuration, sales quote generation
- Call center and customer service support
- Marketing automation

## ➤ Analytical CRM

- Based on data warehouses populated by operational CRM systems and customer touch points
- Analyzes customer data (e.g., data mining)
- Customer lifetime value (CLTV)