

# HIT2416/6416 Enterprise Systems

## Lecture 2

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- Business process
- Value Chain
- Standard Business Functions
- SAP Modules
- SAP Navigation
- Study- Types of Systems

# How Organizations Create Business Value

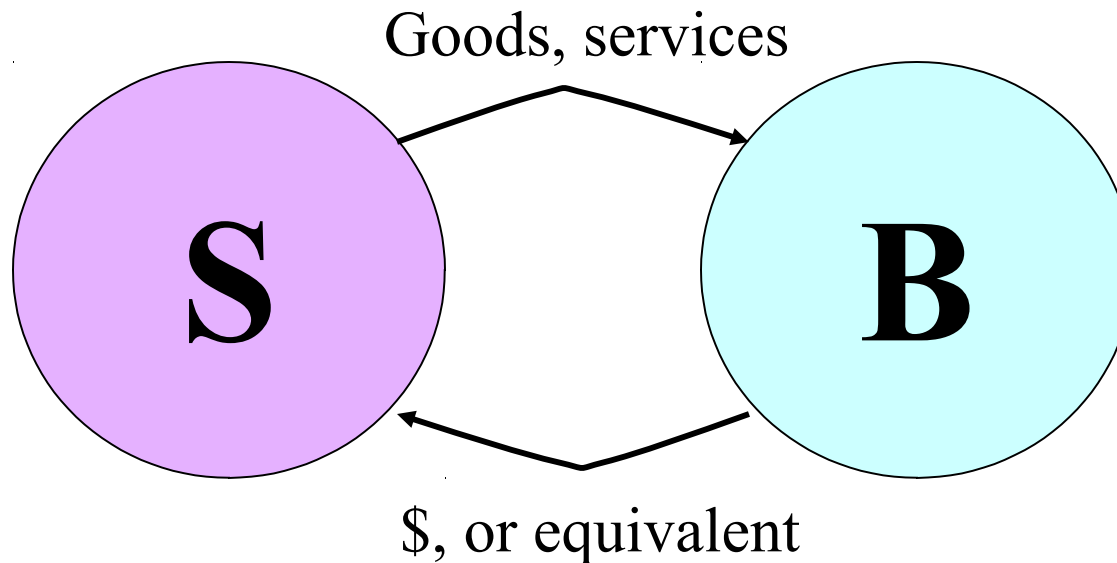
- A **systems view** - organizations transform inputs into goods or services for their customers thereby creating business value for themselves.
- A **value chain<sup>1</sup> view** - organizations can be seen as a chain of activities each of which adds value or supports the addition of value to the firm's goods or services.

*1Porter, M.E. How competitive forces shape strategy.*

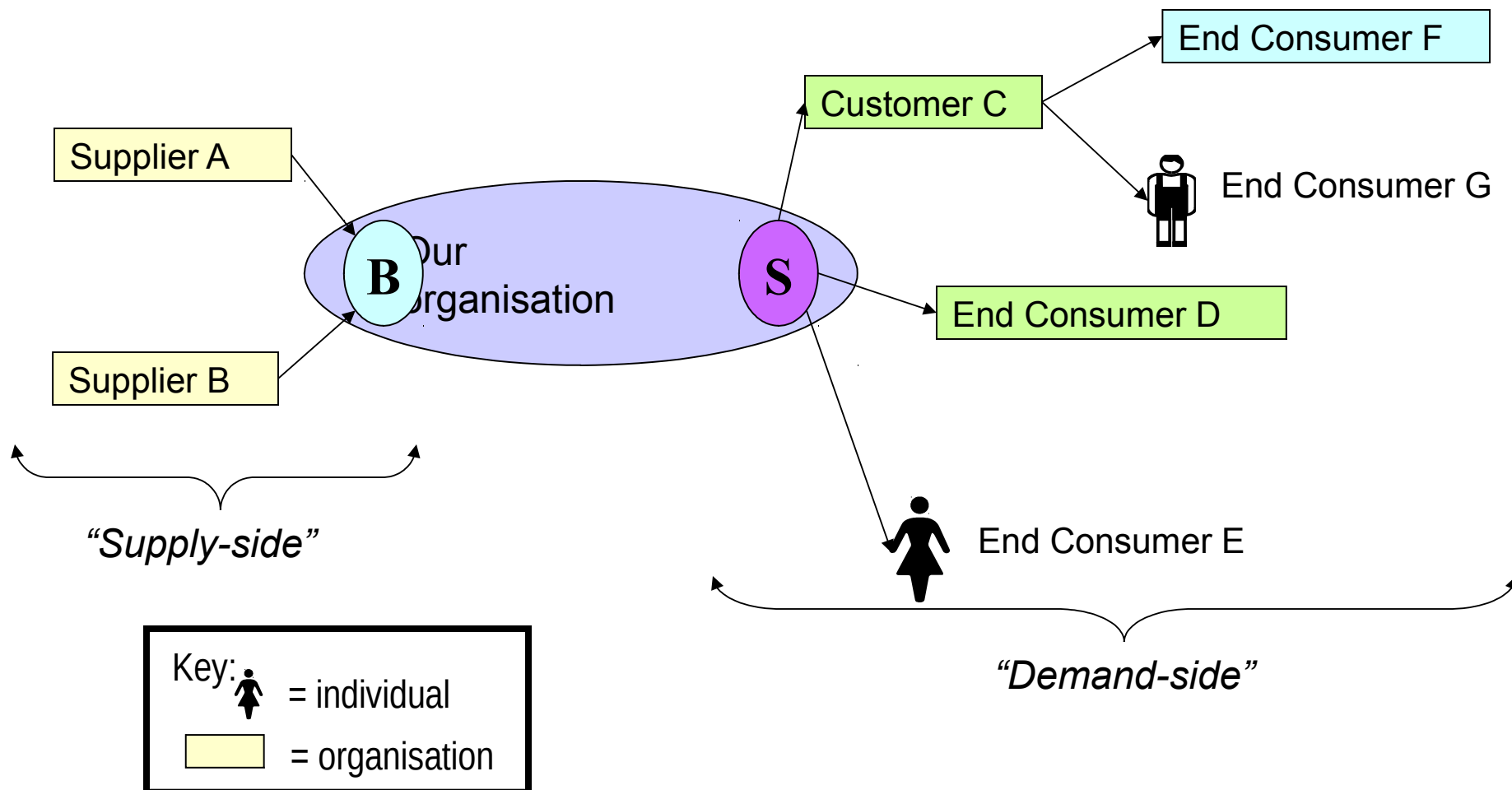
Harvard Business Review, 1979, pp. 137-145.

# Commercial Transactions

- All organizations buy and sell goods and/or services.



# Organisations play both roles (buyer & seller)



# Buyer & Seller Responsibilities

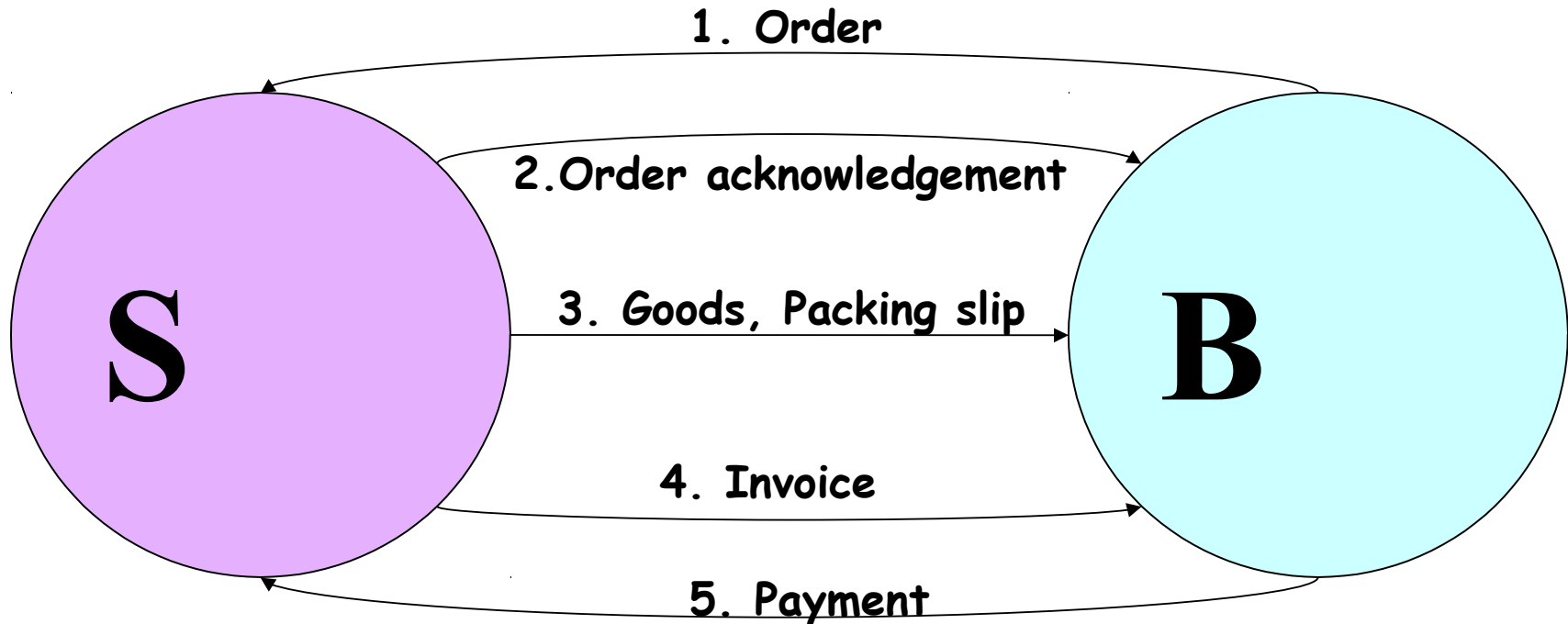
## Seller

- Identify customer needs
- Create products/services to satisfy needs
- Advertise & promote goods/services
- Send quotation
- Negotiate sale transaction
- Dispatch delivery
- Invoice customer
- Receive & process customer payment
- Provide after-sales support, maintenance,
- Warranty services

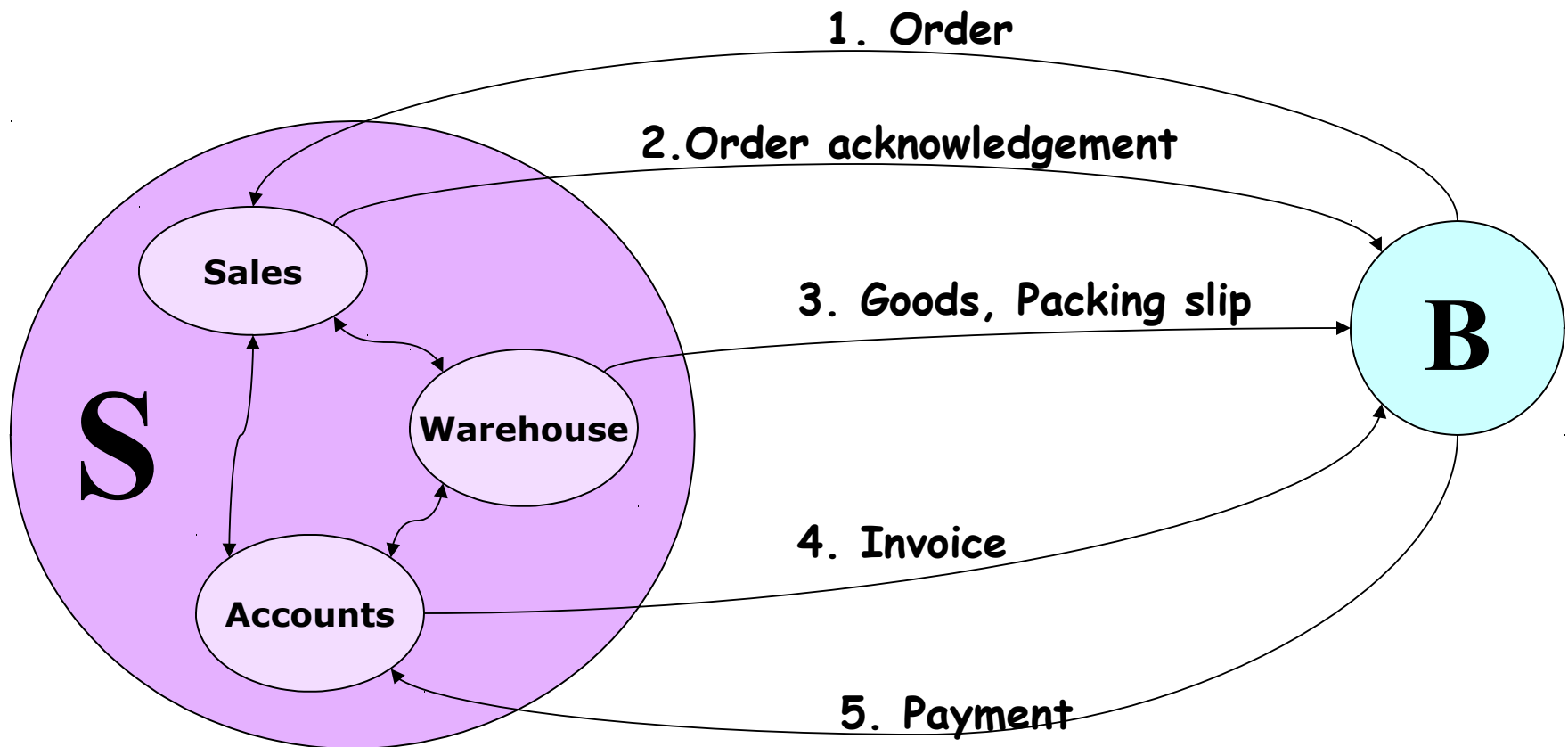
## Buyer

- Identify a need
- Search for products/services to satisfy need
- Request quotation
- Negotiate purchase transaction
- Receive delivery
- Inspection, testing, acceptance
- Make payment
- Warranty claims & regular maintenance

# Buyer-Seller Communications



# Buyer-Seller communications with organisational functions



Remember: B also has internal functions!  
IS are vital in coordinating transactions!

# Business Transactions

- Business Transaction
  - This is different from a Database Transaction. In general a single business transaction gives rise to multiple database transactions.
  - Involve flows of information, goods, services & money between sellers and buyers
  - Can be complex, involve many business functions, can generate a LOT of paperwork
  - Expensive & time consuming for organisations
  - 1 transaction costs >\$100 in many organisations

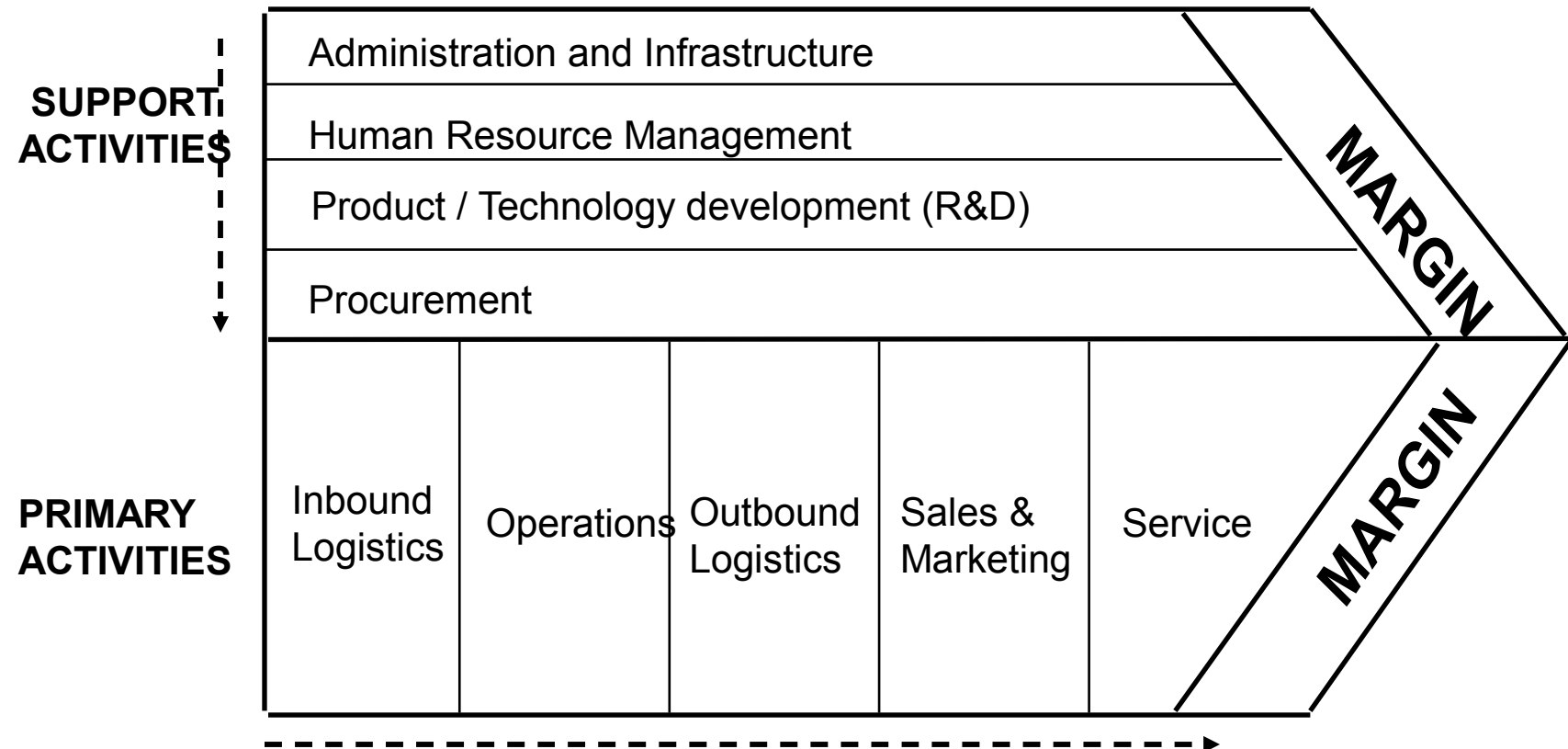
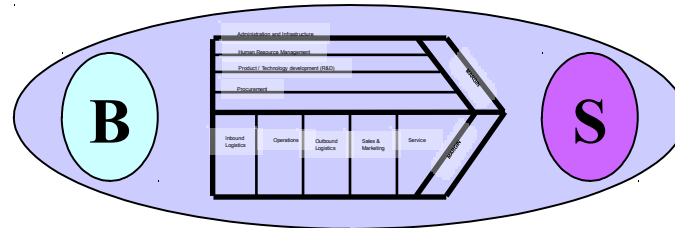


# Business Process

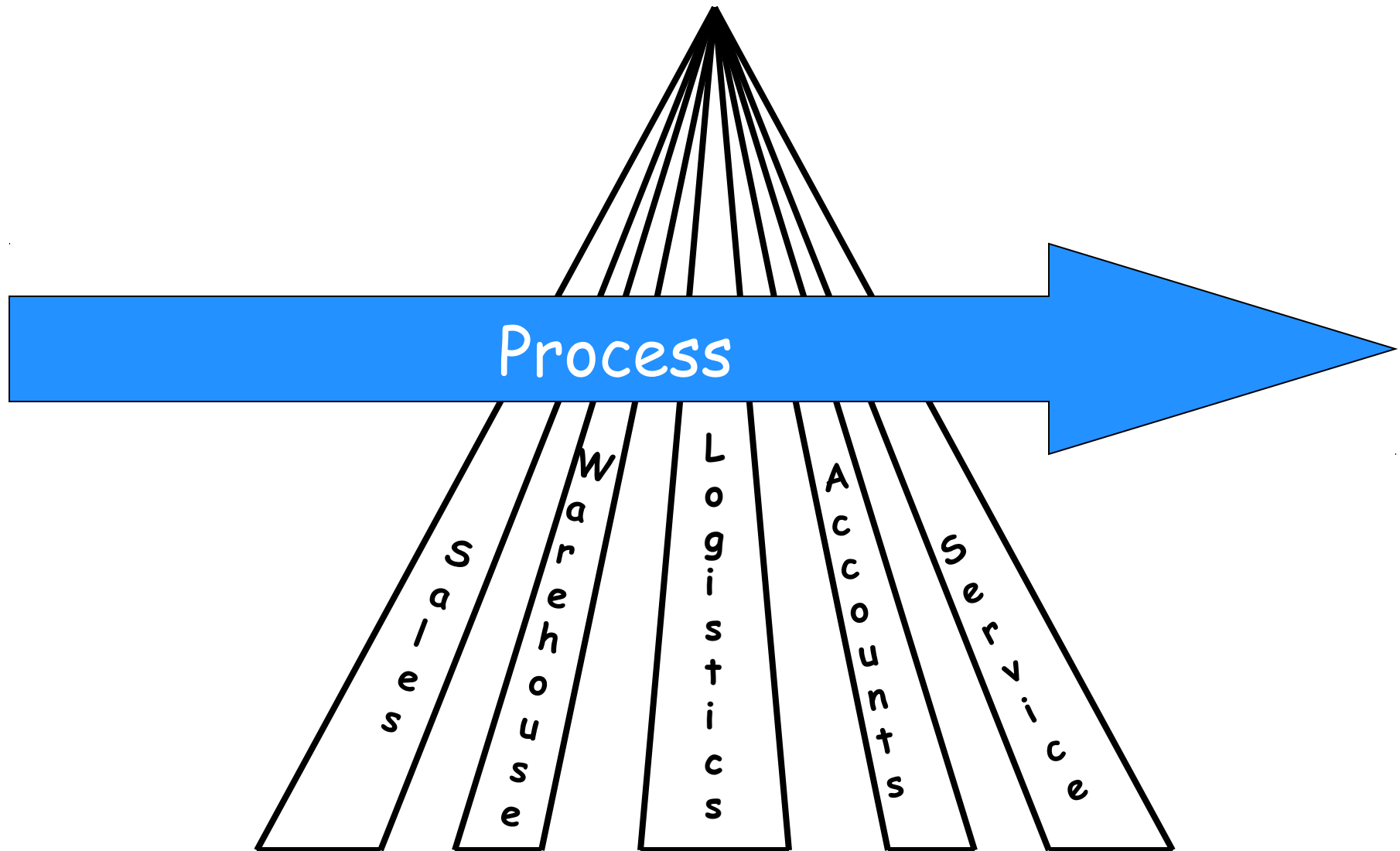
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- Business
  - The economically motivated exchange of goods or services.
- Business Process
  - A series of events which can be structured and measured and which have been developed to generate a specific service for the customer or the market [Davenport].

# Internal Value Chain (Porter)



# Why focus on processes?



# Downside of Functional Organisations

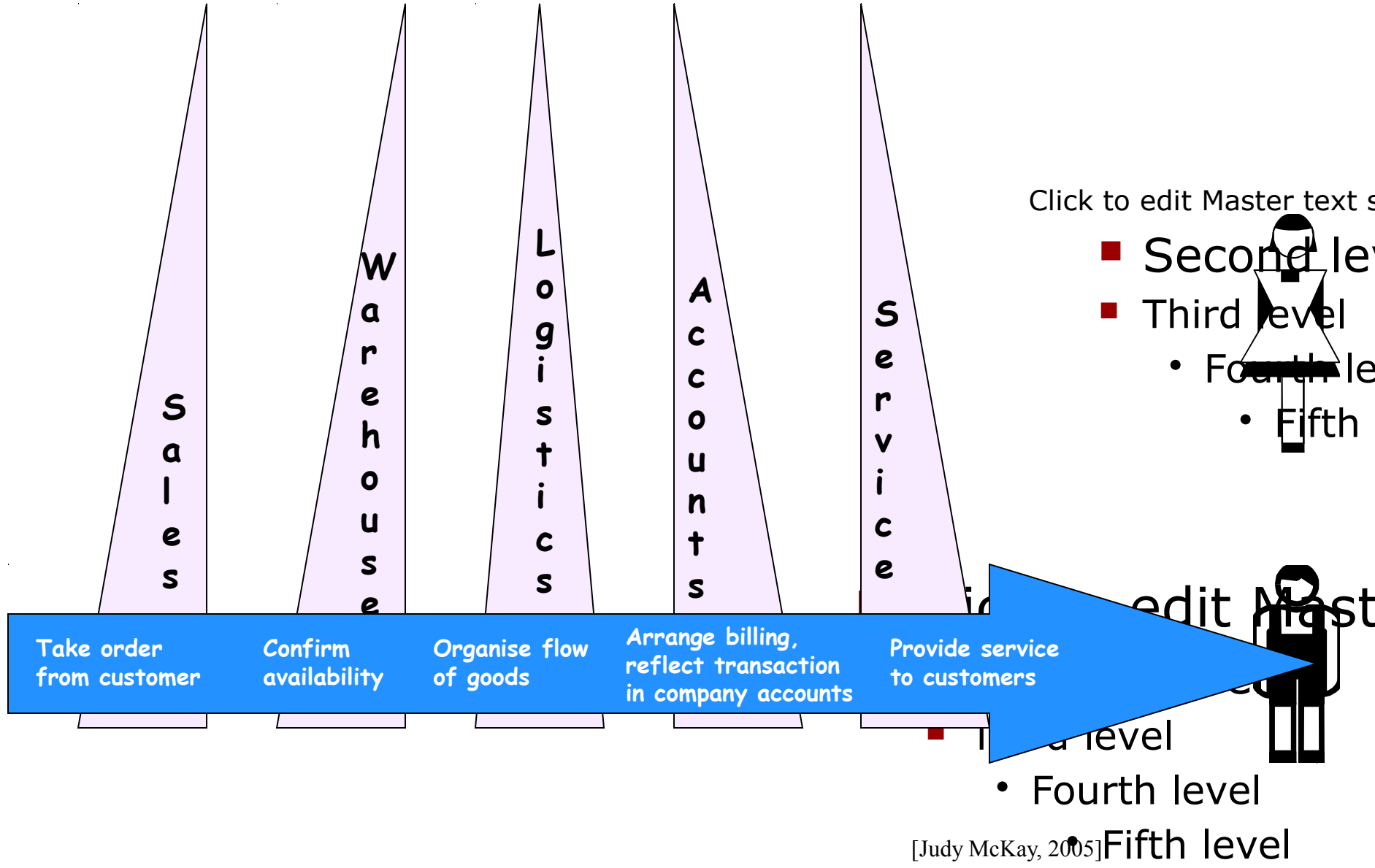
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- Specialisation yields efficiency, but creates problems
  - Ultimately whole processes deliver value, but ...
  - Whole processes are not visible.
  - As the process winds its way through many different departments, handoffs can cause delay, added expense, introduce errors, etc
  - Local optimisation may result in overall inefficiencies.
  - Processes are fragmented

# Process vs Function

- Think about a business transaction
  - Involves many functions
  - process involved crosses many functional boundaries
  - Take an order from external customer
  - (Sales, or Orders received)
  - Check & confirm availability
  - (Warehouse)
  - Organise the flow of goods/services
  - (Logistics)
  - Arrange billing, reflect transaction in company accounts
  - (Accounts)
  - Provide service to customers
  - (Service)

# Current thinking...



# ERP Overview

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- Software used to manage information in every area of the business.
- Manage company-wide business processes using a common database and shared management reporting tools.
- Supports the efficient operation of business processes by integrating activities throughout a business.

# Functional Areas of Operation

- Most companies have four main functional areas:
  - Marketing and Sales (M/S)
  - Supply Chain Management (SCM)
  - Accounting and Finance (A/F)
  - Human Resources (HR)
- Each main functional area consists of a number of narrower business functions specific to the functional area.
- Historically, businesses have organized themselves according to business functions.
- Business Schools continue to be similarly organized.



# Functional Areas of Operation

Functional area	Marketing and Sales	Supply Chain Management	Accounting and Finance	Human Resources
Business functions	Marketing of a product	Purchasing goods and raw materials	Financial accounting	Recruiting and hiring
	Taking sales orders	Receiving goods and raw materials	Cost allocation and control	Training
	Customer support	Transportation and logistics	Planning and budgeting	Payroll
	Customer relationship management	Scheduling production runs	Cash-flow management	Benefits
	Sales forecasting	Manufacturing goods		Government compliance
	Advertising	Plant maintenance		

**FIGURE 1-1** Examples of functional areas of operation and their business functions  
Monk & Wagner, 'Concepts in Enterprise Resource Planning', Second Edition

# Information System

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- An information system includes the:
  - Computers
  - People
  - Procedures
  - Software
- Required to store, organize and deliver information
- Information systems are a critical tool for integrating business functions

# Business Process

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## Key Components:

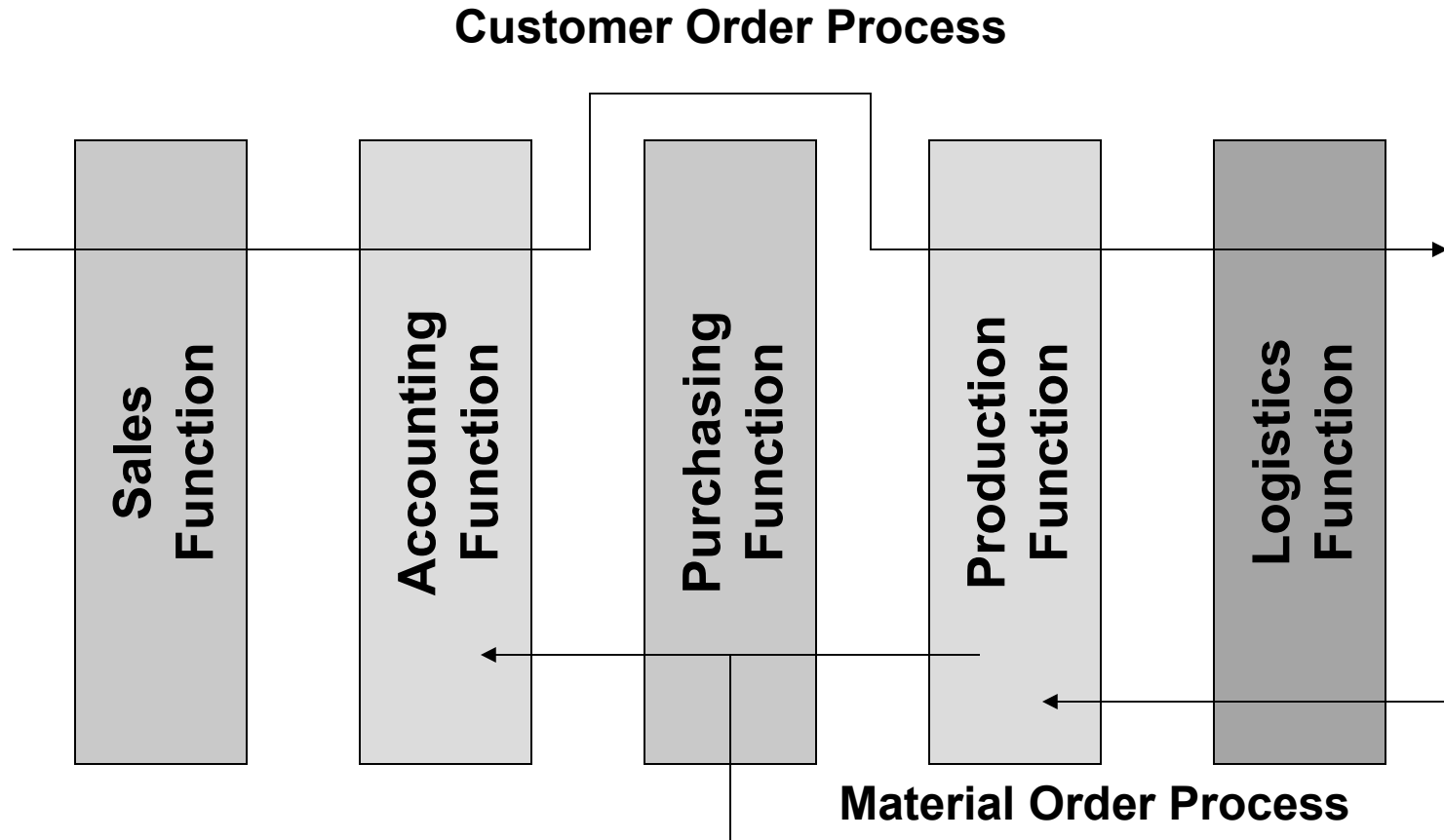
- triggering event
- structured sequence of activities
- output is of value to the customer of the process
- metrics for management

# Business Processes

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- A business process is a collection of activities that takes one or more inputs and creates an output that is of value to the customer
- The customer may be external or internal
- The business process view is the customer's perspective.
- The customer does not care that different functions are involved in processing their order, and will not tolerate mistakes and delays caused by poor coordination of business functions

# Process View of Business



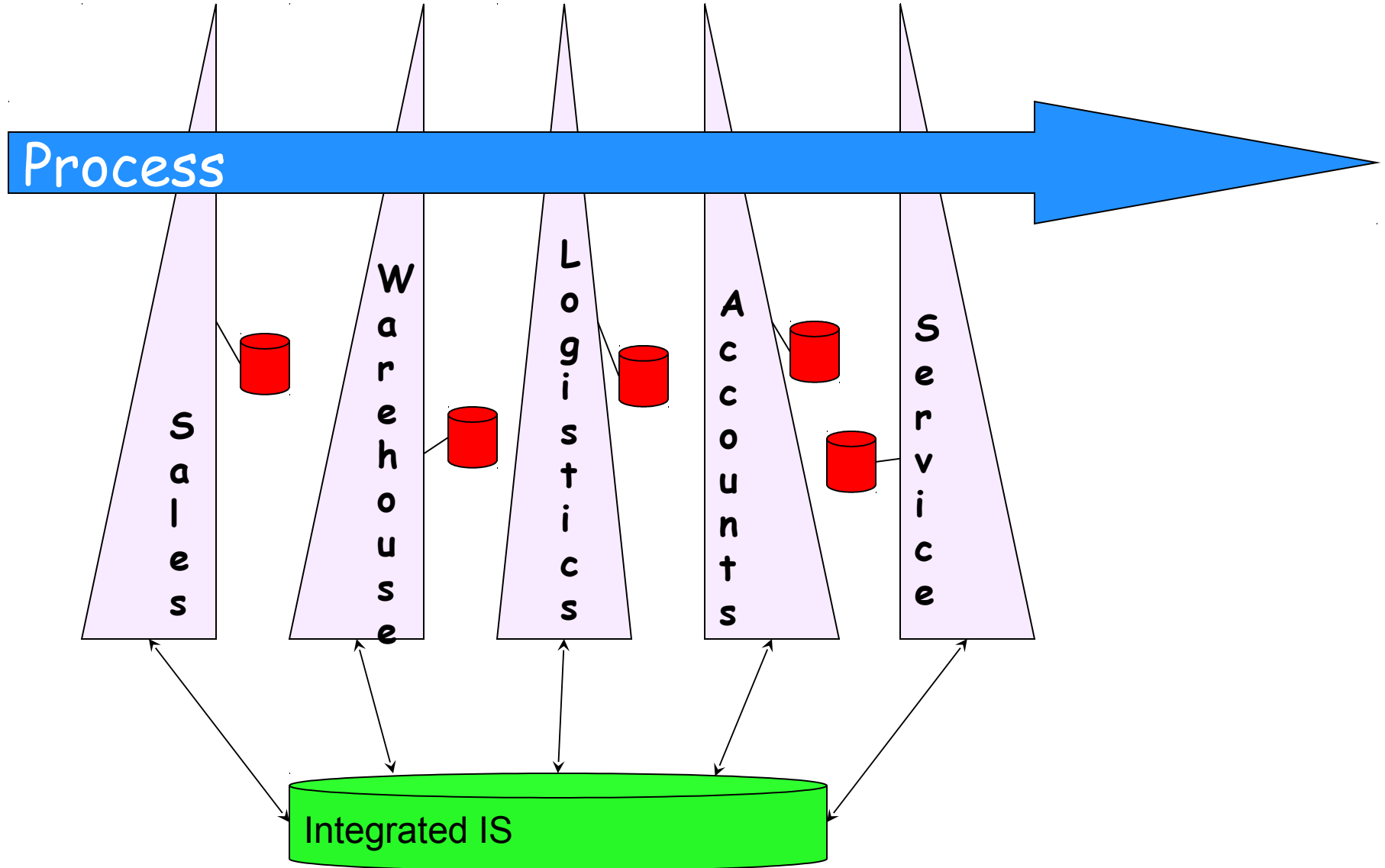
**Figure 1-3** A process view of business

# Integration of Business Functions

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- Sharing data efficiently and effectively within and between functional areas leads to more efficient business processes
- Information systems that share data between functional areas are called **Integrated Information Systems**

# IS Integration



# Nova Chemicals

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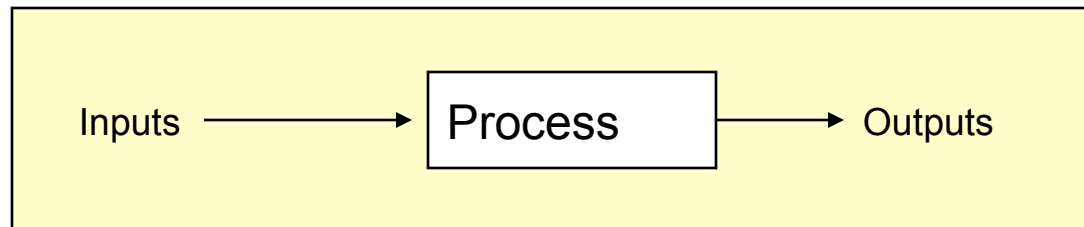
- According to John Wheeler, CIO of Nova Chemicals, changing from a function-oriented view to a process-oriented is a complicated process
- Business processes include:
  - People with particular skill sets
  - Information
  - Tools
  - Correct organizational culture



# Your first business enterprise...



- Think in terms of business processes...
- What are the processes involved in running a lemonade stand?
  - Assume one person
  - Assume cash business



# Lemonade Process

it Master text styles

level

el

level

th level

edit Master text styles

level

el

n level

th level



Get OK  
From  
Mum

*Is it  
feasible?*

Get  
supplies  
together

*What  
supplies  
do I need?*

Make  
lemonade

*How much  
do we  
make?*

Make  
Sign(s)

*How  
much to  
charge?*

Rake in  
the cash

*Is it worth  
continuing?*

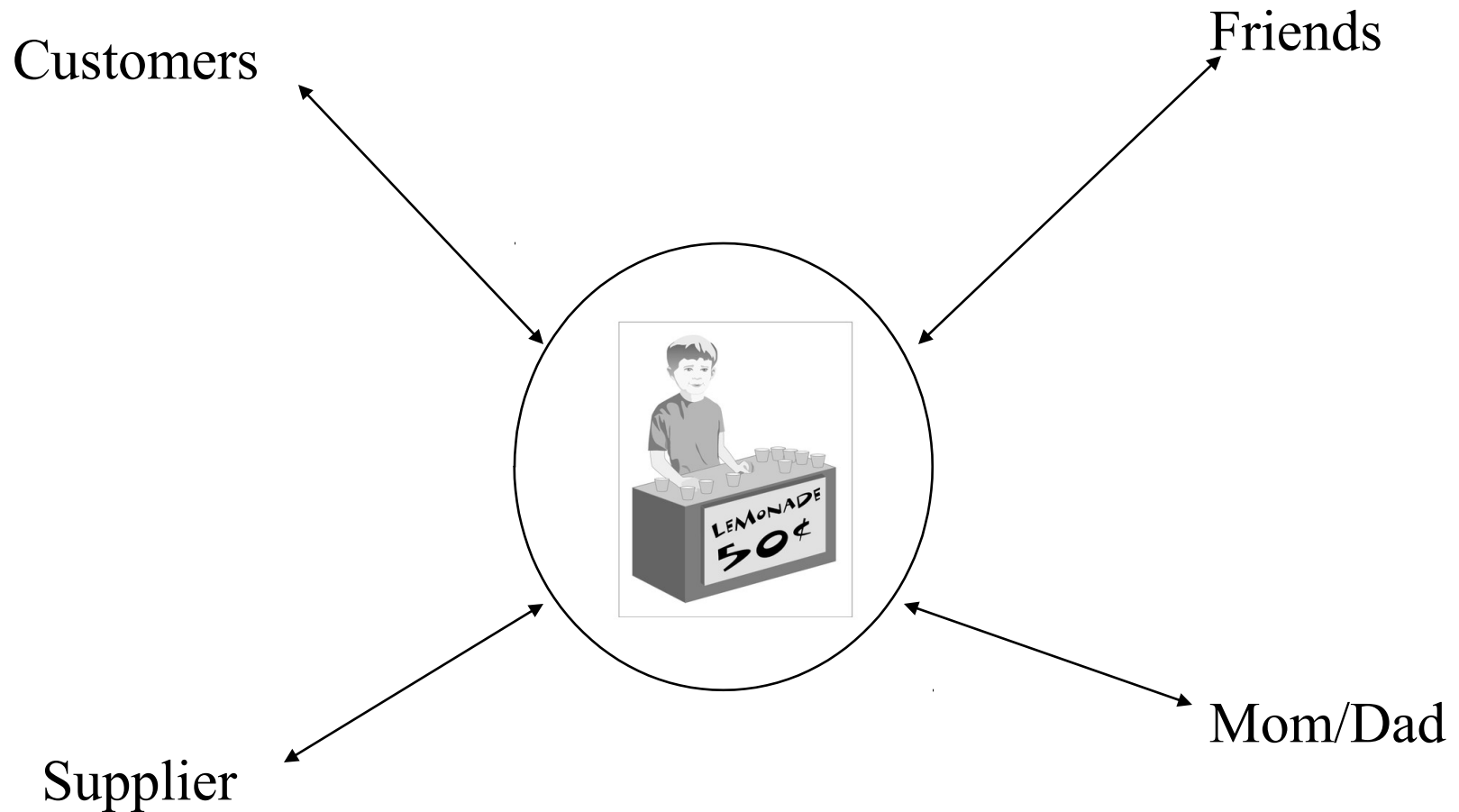
Set up  
table

*Where do I  
operate?*

Choose  
location

*Who are my  
customers?*

# Your enterprise partners...



# Lemonade Stand Functional Areas

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- Marketing and Sales
  - Develop products
  - Determine pricing
  - Promote products
  - Take customer orders
  - Make sales forecast
  - Track repeat customers to send flyers or thank-yous
  - Manage credit

# Lemonade Stand Functional Areas

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- Supply Chain Management
  - Buying raw materials (purchasing)
  - Making lemonade
  - Manage recipe
  - Maintain manufacturing (cost) records

# Lemonade Stand Functional Areas

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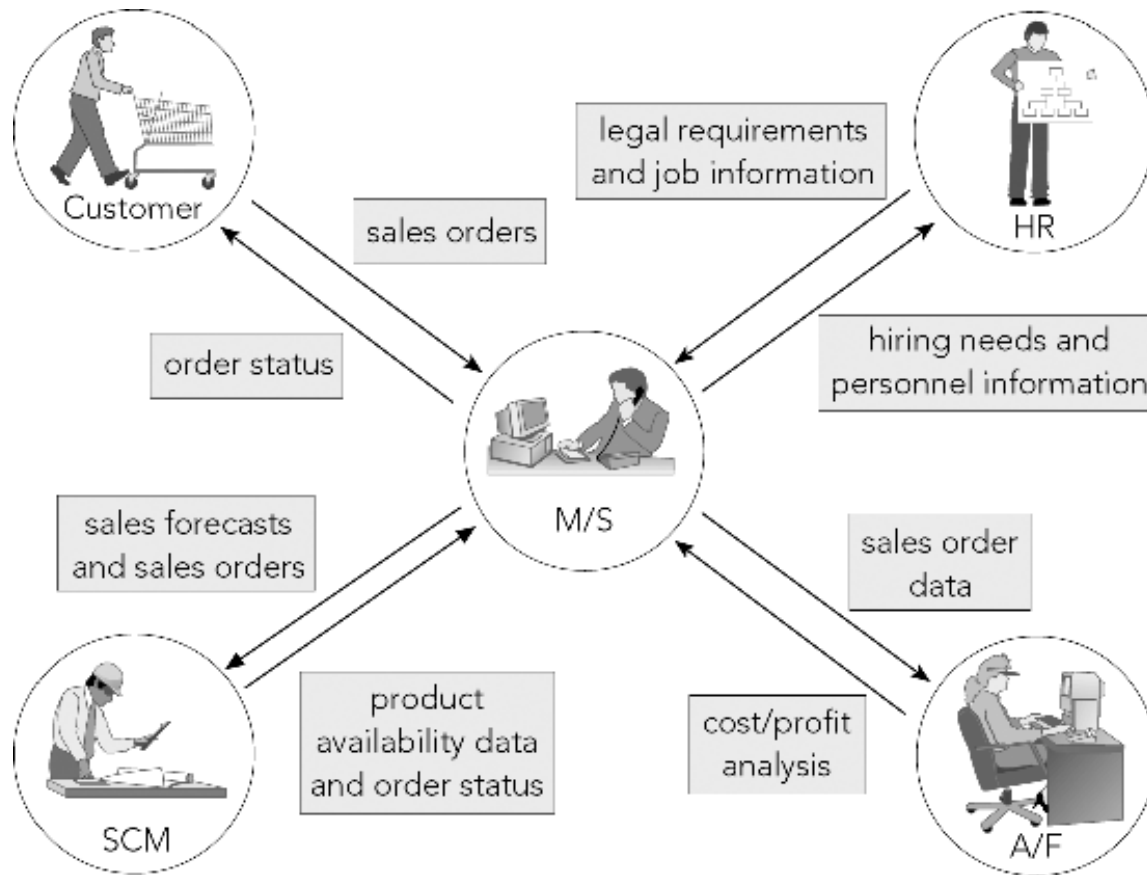
- Accounting and Finance
  - Recording raw transaction data
  - Sales, raw material purchases, payroll, cash receipts
  - Provide data for sales forecasting, credit management, cash management

# Lemonade Stand Functional Areas

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- Human Resources
  - Recruit, train, evaluate and compensate employees
  - Develop personnel plans (staffing) based on sales
  - Determine compensation—depends on labor market

# Functional Area Information Systems



**FIGURE 1-4** The Marketing and Sales functional area exchanges data with customers and with the Human Resources, Accounting and Finance, and Supply Chain Management functional areas

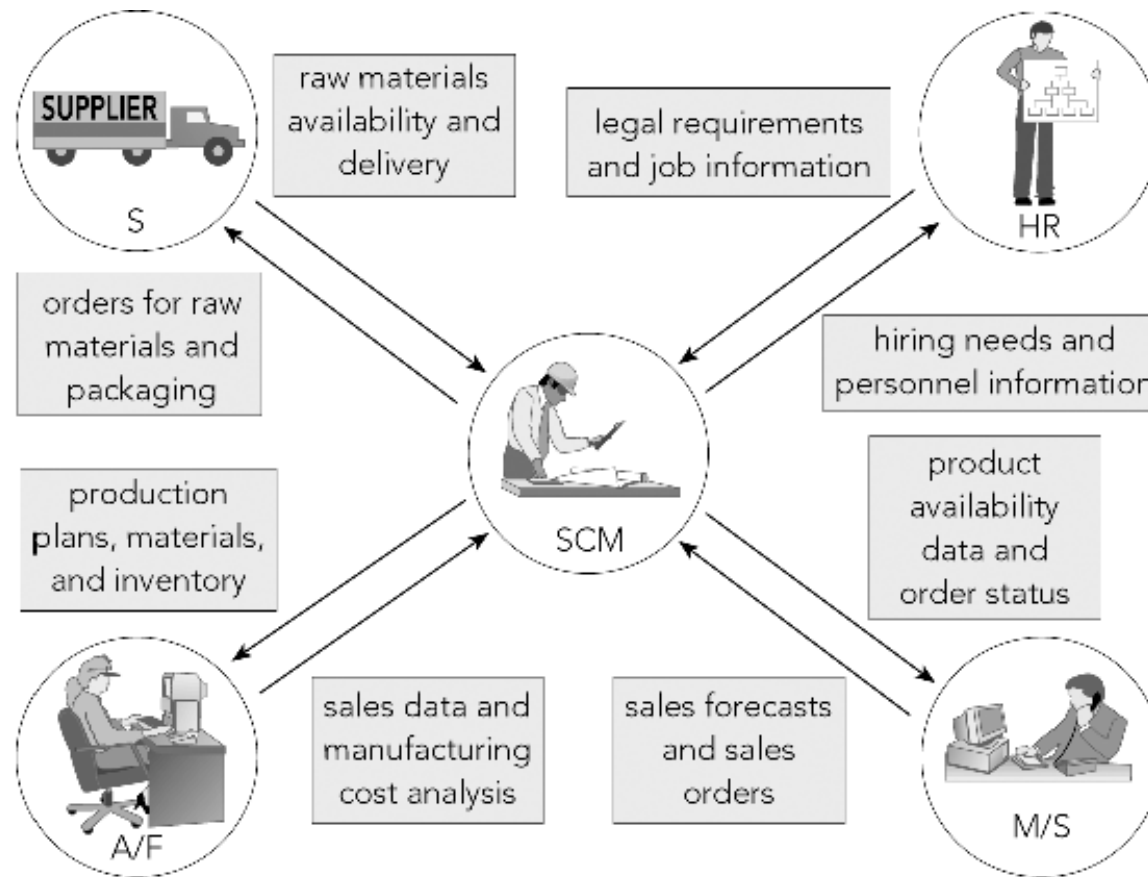


# Marketing and Sales

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- Inputs
  - Customer data
  - Order data
  - Sales trend data
  - Per-unit cost
- Outputs
  - Sales strategies
  - Product pricing

# Functional Area Information Systems



**FIGURE 1-5** The Supply Chain Management functional area exchanges data with suppliers and with the Human Resources, Marketing and Sales, and Accounting and Finance functional areas

# Supply Chain Management

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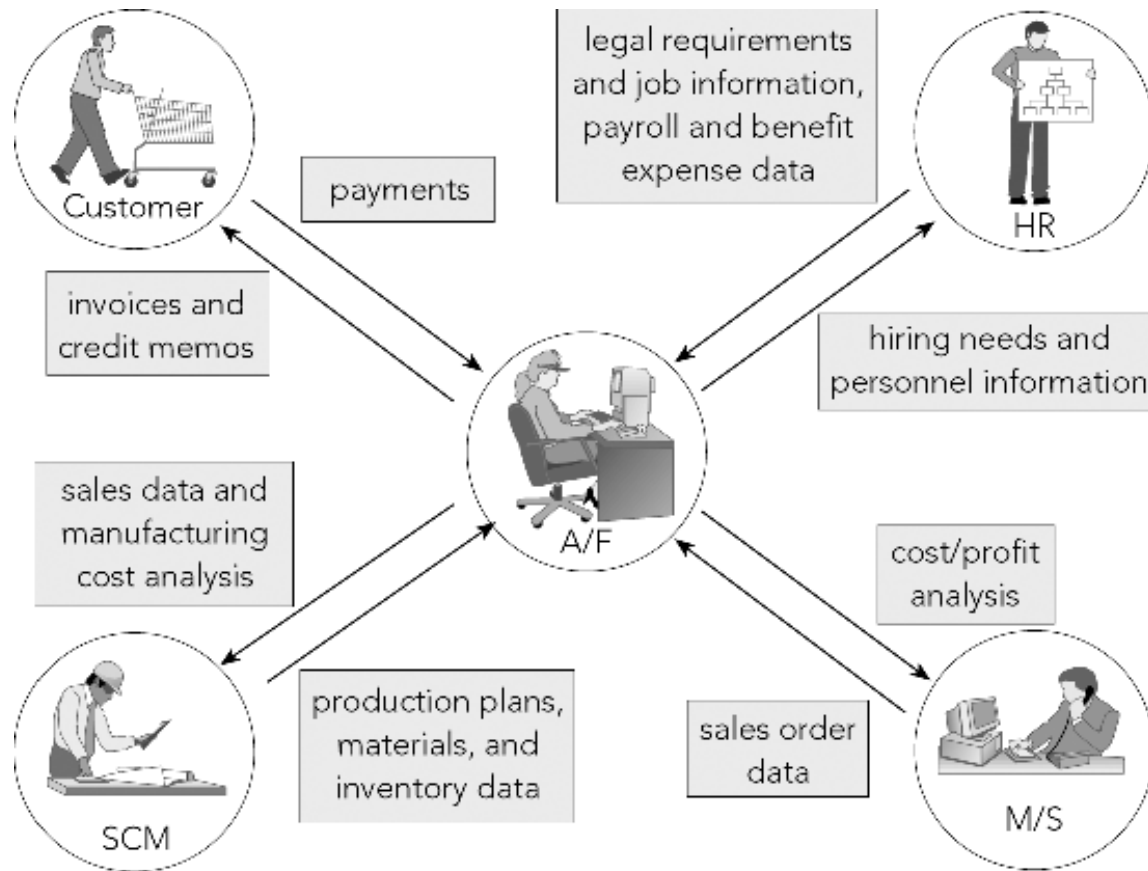
## ■ Inputs

- Product sales data
- Production plans
- Inventory levels

## ■ Outputs

- Raw material orders
- Packaging orders
- Resource expenditure data
- Production and inventory reports

# Functional Area Information Systems



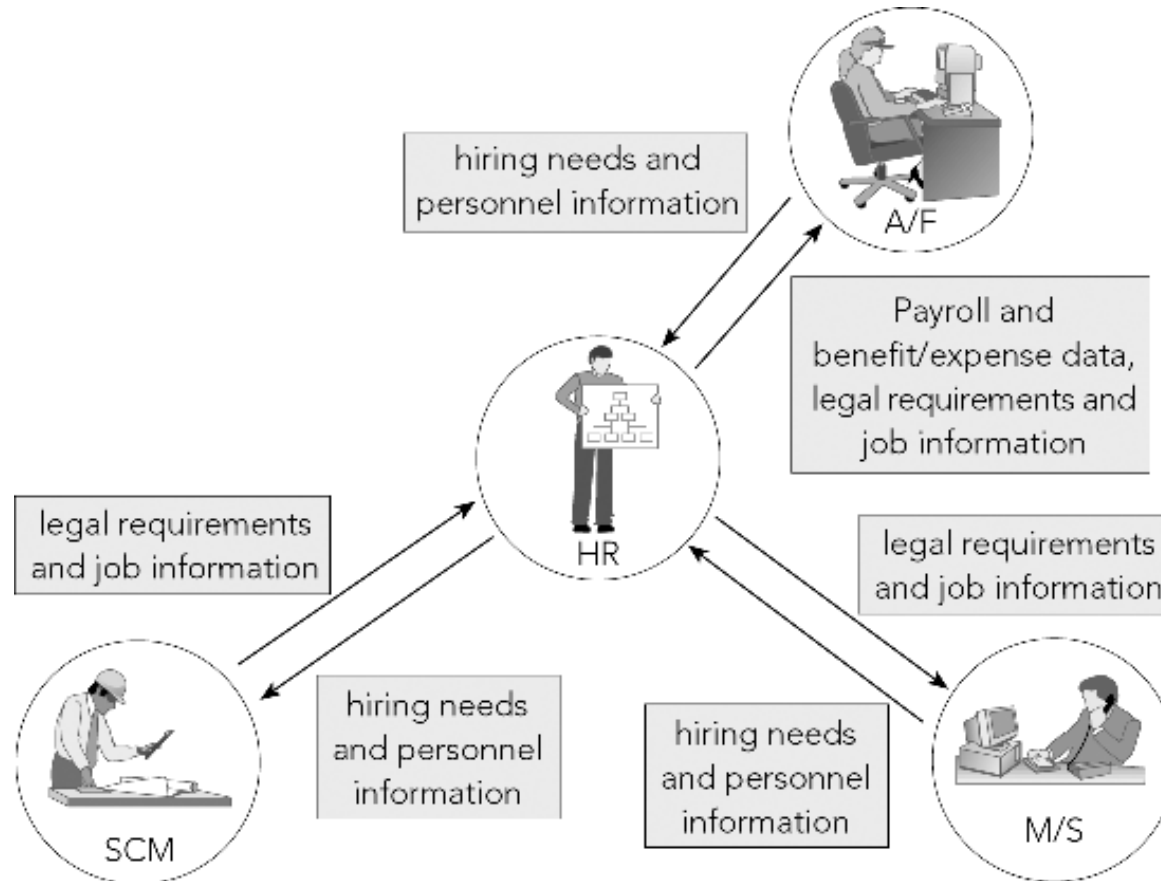
**FIGURE 1-6** The Accounting and Finance functional area exchanges data with customers and with the Human Resources, Marketing and Sales, and Supply Chain Management functional areas

# Accounting and Finance

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- Inputs
  - Payments from customers
  - Accounts receivables data
  - Accounts payables data
  - Sales data
  - Production and inventory data
  - Payroll and expense data
- Outputs
  - Payments to suppliers
  - Financial reports
  - Customer credit data

# Functional Area Information Systems



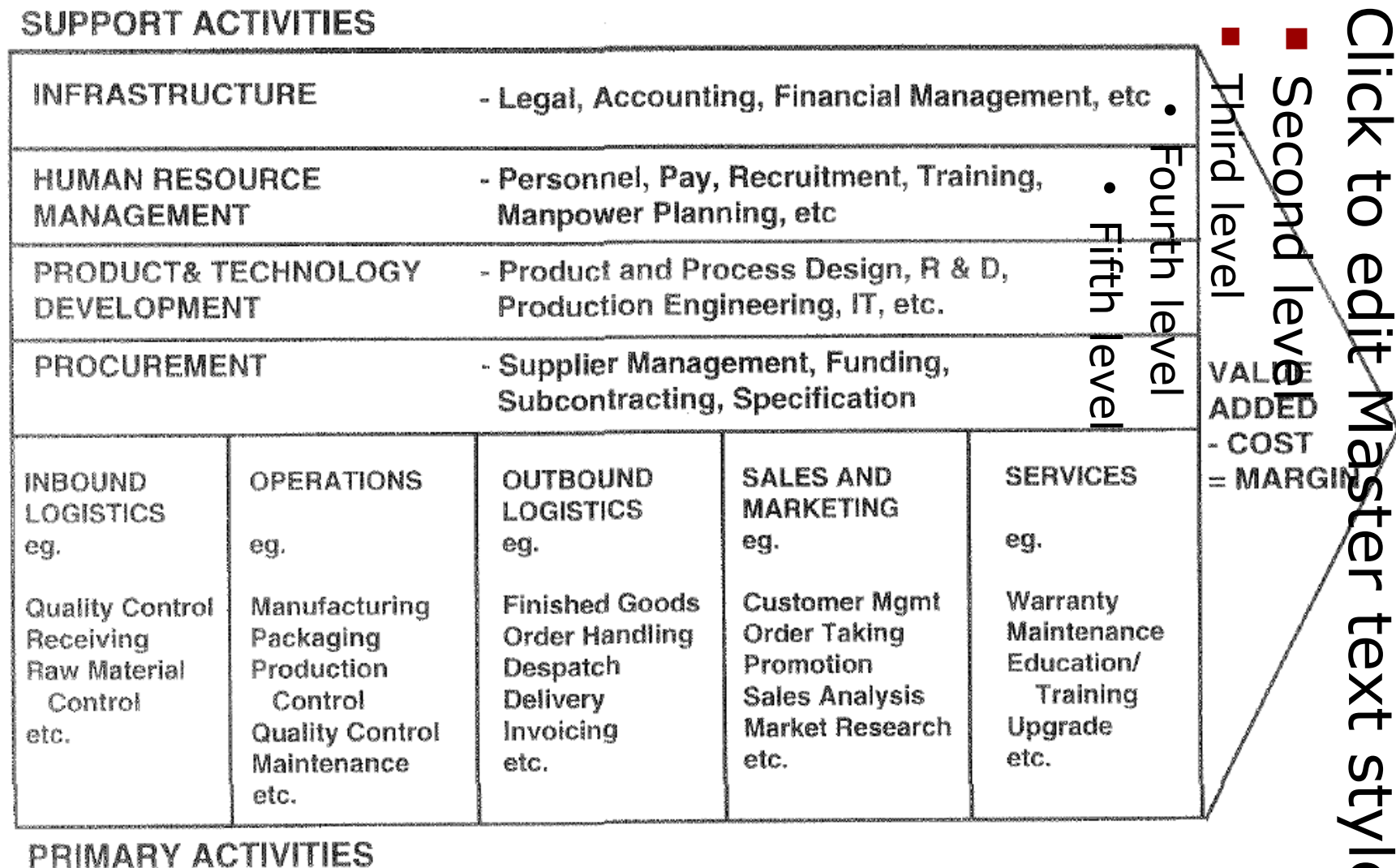
**FIGURE 1-7** The Human Resources functional area exchanges data with the Accounting and Finance, Marketing and Sales, and Supply Chain Management functional areas

# Human Resources

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- Inputs
  - Personnel forecasts
  - Skills data
- Outputs
  - Regulation compliance
  - Employee training and certification
  - Skills database

# Activities in the Value Chain





# SAP at Home

- Download the SAP GUI from QUT
  - [http://sap.fit.qut.edu.au/tech\\_support/download/SAPGUI\\_Windows](http://sap.fit.qut.edu.au/tech_support/download/SAPGUI_Windows)
  - Unzip and install
  - **WARNING!!! 315.7MB**
- Download the connection file from QUT
  - <http://queen.fit.qut.edu.au/irj/go/km/docs/documents/Public%20D>
  - Unzip and copy files into c:\windows directory
  - Connection file has changed since Sem 2 2009
- Installation instructions
  - <http://queen.fit.qut.edu.au/irj/go/km/docs/documents/Public%20D>

# References



Monk & Wagner, 'Concepts in Enterprise Resource Planning', Second Edition, Chapter 1

- Harmon, P. (2003) Business Process Change: a Manager's Guide to Improving, Redesigning & Automating Processes. Morgan Kaufman, San Francisco.
- Gelinas, Sutton & Fedorowicz (2004) Business Processes & Information Technology. Thomson.
- Burlton, R. (2001) Business Process Management: Profiting from Process. SAMS, Indiana.
- Sharp, A. and McDermott, P. (2001) Workflow modelling: tools for process improvement and application development. Artech House, Boston.
- Portougal & Sundaram, *Operational Solutions for SAP Implementation*

# Weekly Reading

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## Reading 1

Monk & Wagner,

Concepts in Enterprise Resource Planning

3rd Edition

Chapter 2, pages 32-39

## Reading 2

Davenport, Thomas H. 1998, 'Putting the Enterprise into the Enterprise System', *Harvard Business Review*, Vol 76 Issue 4, pp121-131, Business Source Complete, EBSCOhost, AN 780261, viewed 05/03/10