

IT 360

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Introduction

- **Enterprise Resource Planning (ERP)** programs: Core software used by companies to coordinate information in every area of business
 - Help manage companywide business processes
 - Use common database and shared management reporting tools
- **Business process:**
 - Collection of activities that takes some input and creates an output that is of value to the customer
 - Sequence of tasks or activities that take a set of inputs and convert them into desired inputs

Functional Areas of Operation

Functional area of operation	Marketing and Sales	Supply Chain Management	Accounting and Finance	Human Resources
Business functions	Marketing of a product	Purchasing goods and raw materials	Financial accounting of payments from customers and to suppliers	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		

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- Describe the functional areas for a hypothetical lemonade stand.

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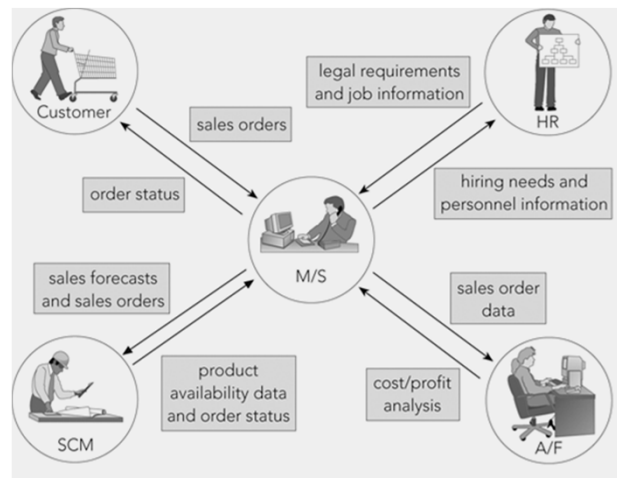
Sample Answer

M&S	SCM	Acct&Fin	HR
Advertisements, catchy flyers, word-of-mouth, signs	Buy lemons and sugar	Keeping track of money in and money to your mother for supplies	Getting your friends to work for you
Asking customers what they want	Unpacking the groceries from the car and filling your stand	Watching for sales	Showing them how to make the lemonade and take money when selling
Refunding any glasses that don't taste good	Carrying groceries from the car; riding your bike to the store for more supplies	Creating a spreadsheet to ensure you're making a profit	Giving them a salary of a few dollars per hour or a cut of the profits
Knowing which houses got lemonade flyers (not giving them multiple flyers)	After looking at your forecast, deciding when to make batches of lemonade	Using your savings for start-up funds and ensuring you're not over budget. Avoiding any cash shortages	Free lemonade
Predicting your sales over the next month	Mixing the lemonade		
Flyers in mailboxes; signs in yard	Cleaning your equipment and putting it away every evening		

Marketing and Sales

- Needs information from all other functional areas
- Customers communicate orders to M/S in person or by telephone, e-mail, fax, the Web, etc.
- M/S has a role in determining product prices
 - Pricing might be determined based on a product's unit cost, plus some percentage markup
 - Requires information from Accounting and Finance, and Supply Chain Management data

Marketing and Sales (cont'd.)



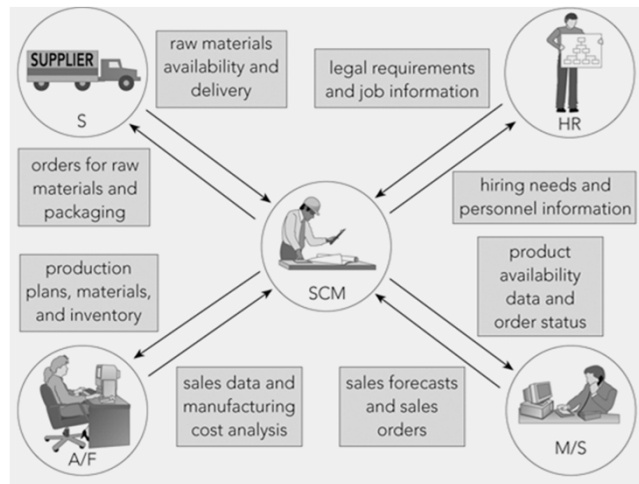
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Supply Chain Management

- Needs information from various functional areas
- Production plans based on information about product sales (actual and projected) that comes from Marketing and Sales
- Supply Chain Management data and records can:
 - Provide data needed by Accounting and Finance to determine how much of each resource was used
 - Support the M/S function by providing information about what has been produced and shipped

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Supply Chain Management (cont'd.)



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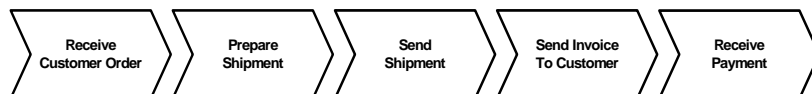
Business processes – Another View

- Key processes
 - Procurement
 - Fulfillment
 - Production

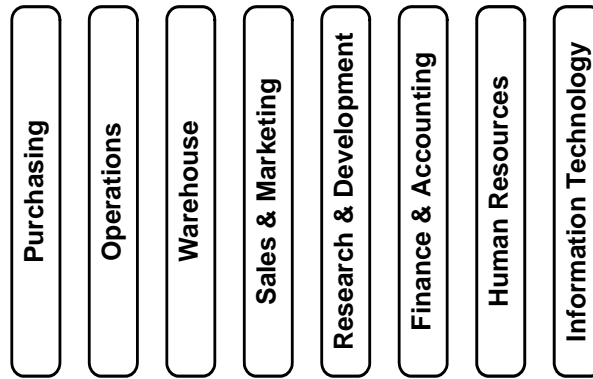
Procurement Process



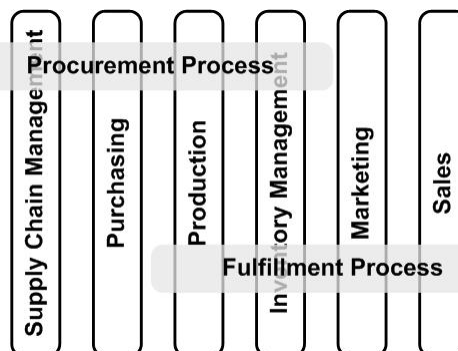
Fulfillment Process



Functional organizational



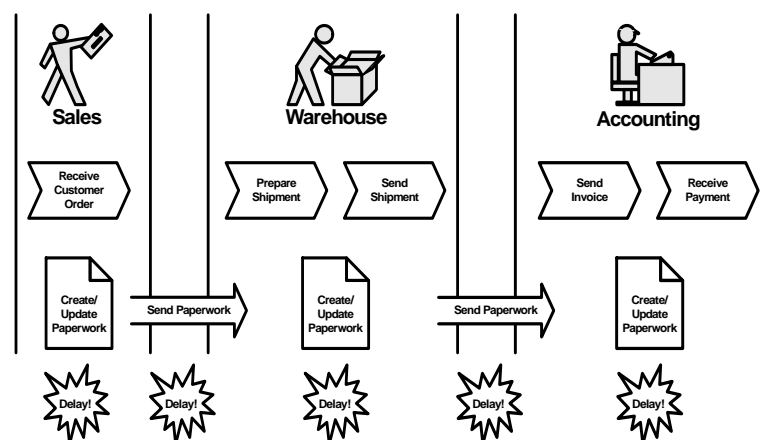
Functions vs. processes



The Silo effect

- Communication and collaboration between functions
 - What must be communicated?
 - What information must be exchanged?
 - How is this coordinated
- Paper based processes
- Processes supported by functional systems
- Processes supported by enterprise systems

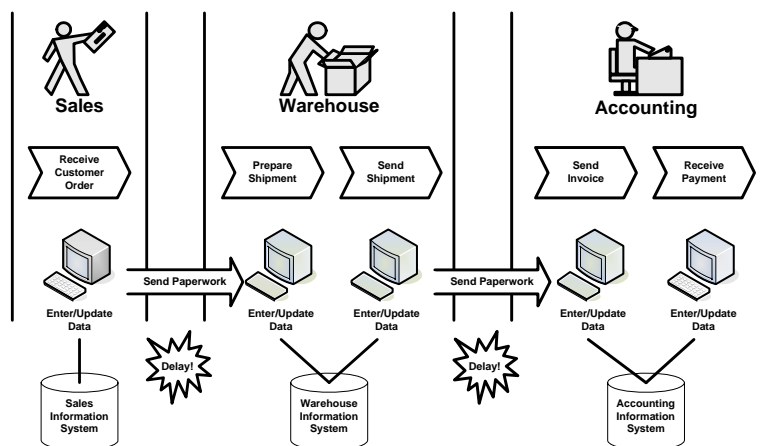
Paper-based process



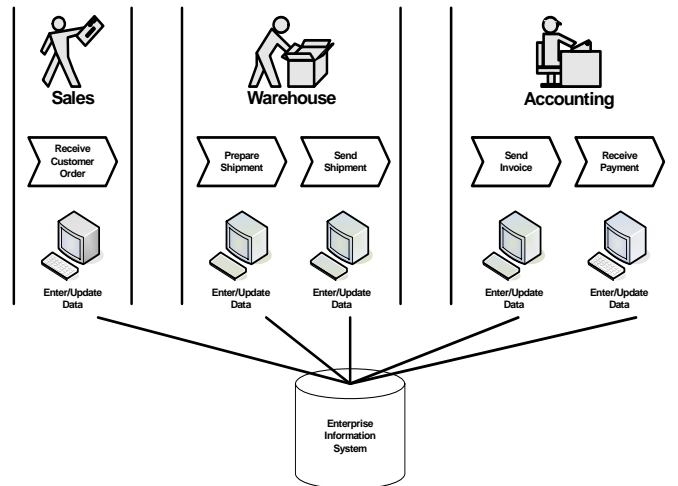
Consequences of delays

- Delays
 - Increased lead times
 - Increased cycle times
- Excess inventory
 - “just in case”
- Lack of visibility across the process
 - Status: “where is my order”
 - How is the process doing

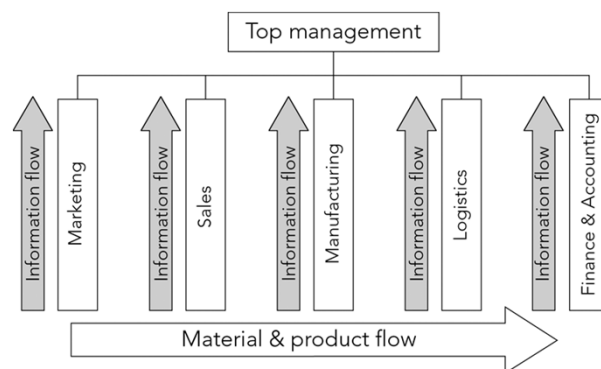
Process using functional systems



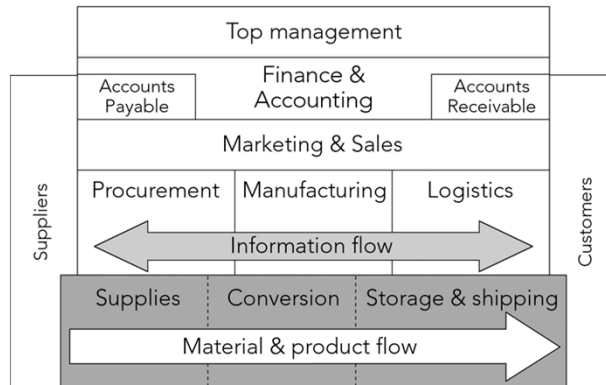
Processes using Enterprise Systems



Management's Impetus to Adopt ERP (cont'd.)

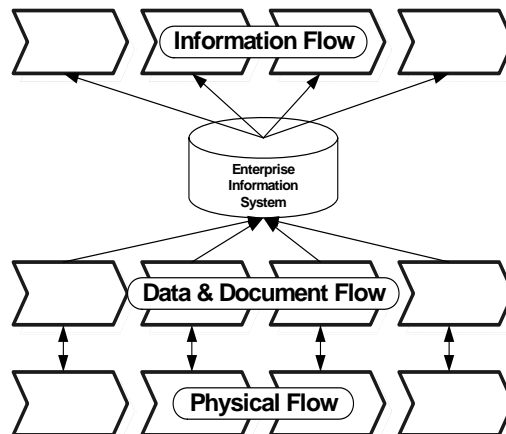


Management's Impetus to Adopt ERP (cont'd.)



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Framework: Key process flows



Role of ES in organizations

- Execute the process
 - Inform, provide data, help complete steps
 - Examples in procurement and fulfillment
- Capture and store process data
 - Automatic capture
- Monitor performance
 - Instance level information (status)
 - Process level information (aggregate)