

ILMU KOMPUTER

WELCOME TO ENTERPRISE SYSTEMS (SSP) 2017/2018

SISTEM SISTEM PERUSAHAAN
CSIM602262

University/Faculty Regulations

- Minimum attendance in class: 75%
- No plagiarism in report/academic work and writing (Merriam-Webster's Collegiate Dictionary, Eleventh Edition, USA, 2003)
 - to steal and pass off (the ideas or words of another) as one's own
 - to use (another's production) without crediting the source
 - to commit literary theft
 - to present as new and original an idea or product derived from an existing source
- No cheating in examination



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TOPIC 1 INTRODUCTION TO BUSINESS PROCESS

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Learning Objectives

- 1. Student can explain main **functional areas** of operation used in business
- 2. Student can explain key business processes in an organization
- 3. Student can explain the difference between **business process** and **business function**
- 4. Student can explain the kinds of **data produced and needed** by each main functional area
- 5. Student can explain the **cross-functional nature of process** and their relationship to organizational areas
- 6. Student can explain the importance of integrated business processes.

1.1 BUSINESS PROCESS

Business Is Complex Activities



Sales Order ATP Check MRP Purchase Goods Receive Production

Payment Create Invoice Delivery

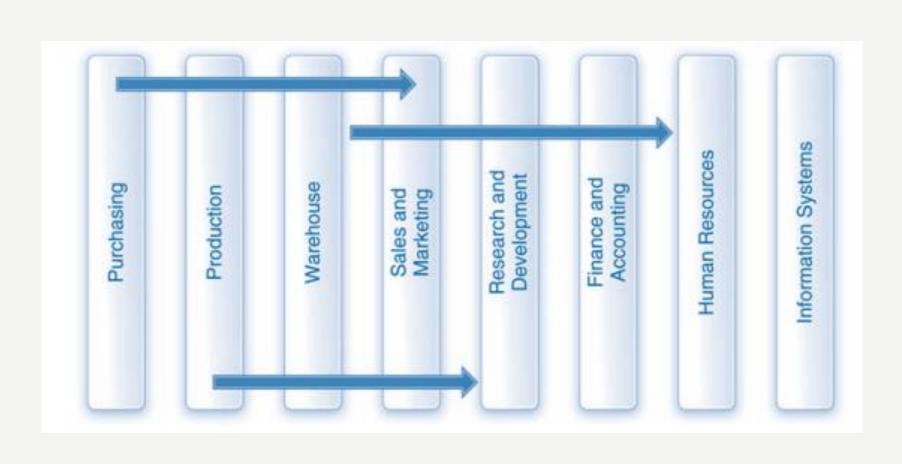
Functional Areas of Operation and Business Function

- Most companies have four main functional areas of operation, such as:
 - Marketing and Sales (M/S),
 - Supply Chain Management (SCM),
 - Accounting and Finance (A/F), and
 - Human Resources (HR).
- Each area is composed of a variety of narrower **business functions**, which are activities specific to that functional area of operation.

Functional Areas of Operation and Business Function

Functional area of operation	Marketing and Sales	Supply Chain Management	Accounting and Finance	Human Resources
Business functions	Marketing 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		

The cross-functional nature of business processes



The cross-functional nature of business processes [2]

- Although most companies maintain vertical (or functional) silos to compartmentalize their operational units, the integrated business processes that companies use to perform their work cut across these silos horizontally.
- Business processes, such as the procurement and fulfillment processes, consist of activities that occur in different, seemingly unrelated functions or departments.
- In other words, these processes are **cross-functional**, meaning no single group or function is responsible for their execution. Rather, it is a shared responsibility among many functional areas.

The cross-functional nature of business processes [3]

- For a process to be successfully completed, then, the company must rely on each functional group to execute its individual steps in the process in a coordinated way, which, as we shall see, may not be an easy thing to accomplish.
- Functional areas are interdependent
 - Each requires data from the others
- Better integration of functional areas leads to improvements in communication, workflow, and success of company
- Information system (IS) helps the integration among them (Computers, people, procedures, and software that store, organize, and deliver information)

The silo effect

- Over time, it is found a major drawback in functional structure of an organization, which is called as silo effect.
 - It is the tendency when workers complete their tasks in their functional "silos" without regard to the consequences for the other components in the process.
 - That is when people in the different functional areas came to perform their steps in the process in isolation, without fully understanding which steps happen before and which steps happen next. They essentially complete their part of the process, hand it off to the next person, and then proceed to the next task.
 - By focusing so narrowly on their specific tasks, they lose sight of the "big picture" of the larger process, be it procurement, fulfillment, or any number of other common business processes.

Functional Systems

- Functional systems facilitated the work of a single department/function
- These systems grew as a natural expansion of the capabilities of systems of the first era
 - ☐ Payroll expanded to become human resources
 - ☐ General ledger became financial reporting
 - ☐ Inventory was merged into operations or manufacturing
- These new functional areas added features and functions to encompass more activities and to provide more value and assistance
- The problem with functional applications is their isolation
- Functional applications are sometimes called islands of automation

1.2 KEY BUSINESS PROCESSES IN AN ORGANIZATION

Business Processes

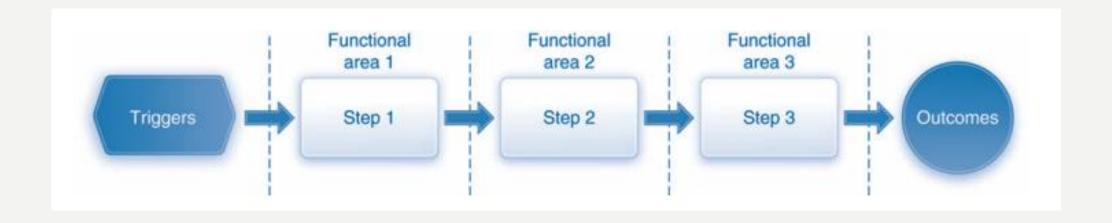
- Set of tasks or activities that produce desired outcomes. Every process is triggered by some event,
 - such as receiving a customer order or recognizing the need to increase inventory.
- Collection of activities that takes one or more kinds of input and creates an output that is of value to customer.
 - Customer can be traditional external customer or internal customer
- Thinking in terms of business processes helps managers to look at their organization from the customer's perspective.

Business Processes

Sample business processes related to the sale of a personal computer

Input	Functional area responsible for input	Process	Output
Request to purchase computer	Marketing and Sales	Sales order	Order is generated
Financial help for purchase	Accounting and Finance	Arranging financing in-house	Customer finances through the computer company
Technical support	Marketing and Sales	24-hour help line available	Customer's technical query is resolved
Fulfillment of order	Supply Chain Management	Shipping and delivery	Customer receives computer

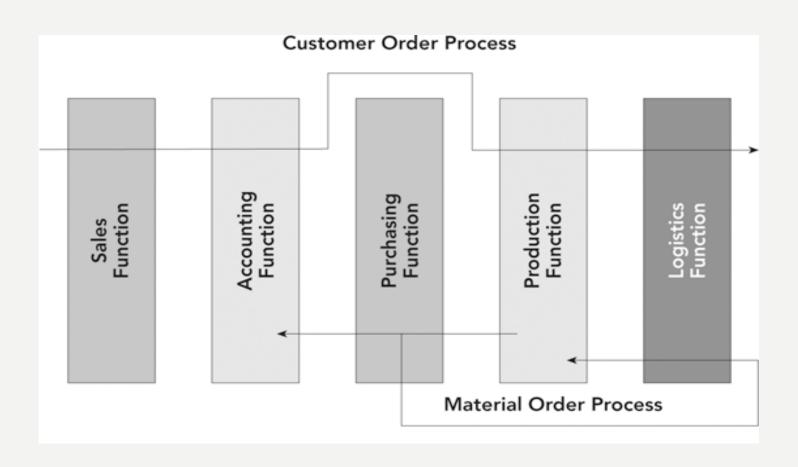
Generic Business Processes



The Importance of Integrated Business Processes for Customer

- Businesses must always consider customer's viewpoint in any transaction
- Successful customer interaction
 - Customer (either internal or external) is not required to interact with each business function involved in the process
- Successful business managers view business operations from the perspective of a satisfied customer
- Sharing data effectively and efficiently between and within functional areas leads to more efficient business processes
- Integrated information systems: Systems in which functional areas share data

A process view of business operations



Business Processes

- * Businesses take inputs (resources) and transform these inputs into goods and services for customers.
 - Inputs: Material, people, equipment
- * Managing inputs and business processes effectively requires accurate and up-to-date information.
 - For example, the sales staff takes a customer's order, and production employees schedule the manufacturing of the product. Logistics employees schedule and carry out the delivery of the product. If raw materials are needed to make the product, production prompts purchasing staff to arrange for their purchase and delivery. Logistics will receive the raw material, verify its receipt to accounting so the vendor can be paid, and deliver the goods to production. Throughout, accounting keeps appropriate transaction records.

Functional areas and business processes of a very small business

☑ Marketing and Sales
 ☑ Supply Chain Management
 ☑ Accounting and Finance
 ☑ Human Resources

1. Marketing and Sales

- Functions of Marketing and Sales
 - Developing products
 - Determining pricing
 - Promoting products to customers
 - Taking customers' orders
 - Helping create a sales forecast





2. Supply Chain Management (SCM)

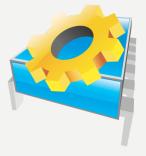
- Functions within Supply Chain Management
 - Making the lemonade (manufacturing/production)
 - Buying raw materials (purchasing)
- Production planning requires sales forecasts from M/S functional area
 - Sales forecasts: Analyses that attempt to predict the future sales of a product





2. Supply Chain Management (SCM) — [2]

- Production plans used to develop requirements for raw materials and packaging
 - Raw materials: Bottled spring water, fresh lemons, artificial sweetener, raw sugar
 - Packaging: Cups, straws, napkins
- SCM and M/S must choose a recipe for each lemonade product sold



3. Accounting and Finance

- Functions within Accounting and Finance
 - Recording raw data about transactions (including sales), raw material purchases, payroll, and receipt of cash from customers
- * Raw data: Numbers collected from those operations, without any manipulation, calculation, or arrangement for presentation



3. Accounting and Finance [2]

- Data from Accounting and Finance used by Marketing and Sales and Supply Chain Management
 - Sales records are important component of sales forecast
 - Sales forecast is used in making staffing decisions and in production planning
 - Records from accounts receivable used to monitor the overall credit-granting policy of the lemonade stand



4. Human Resources

- Functions of Human Resources
 - Recruit, train, evaluate, and compensate employees
- HR uses sales forecasts developed by the individual departments to plan personnel needs
- Systems integrated using ERP software provide the data sharing necessary between functional areas



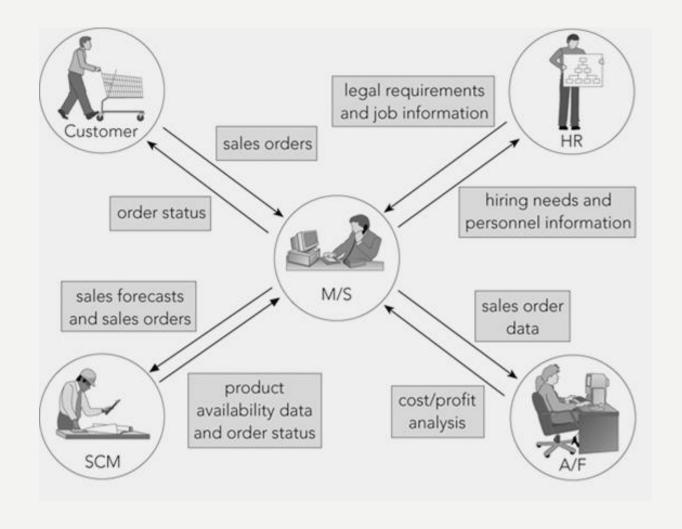
1.4 **VARIOUS DATA** IN FUNCTIONAL INFORMATION SYSTEMS

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 [2]

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



Supply Chain Management

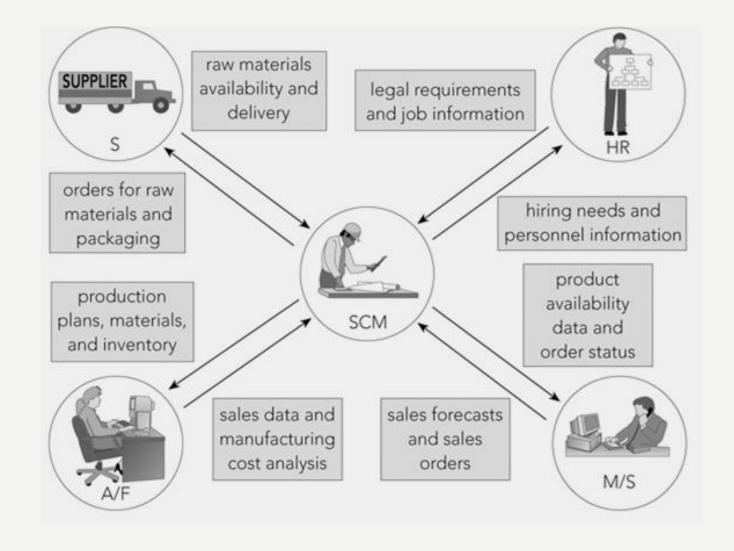
- Needs information from various functional areas
- Production plans based on information about product sales (actual and projected) that comes from Marketing and Sales
- With accurate data about required production levels:
 - Raw material and packaging can be ordered as needed
 - Inventory levels can be kept low, saving money

Supply Chain Management [2]

- 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
- Supply Chain Management interacts in some ways with Human Resources

Supply Chain Management [2]

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

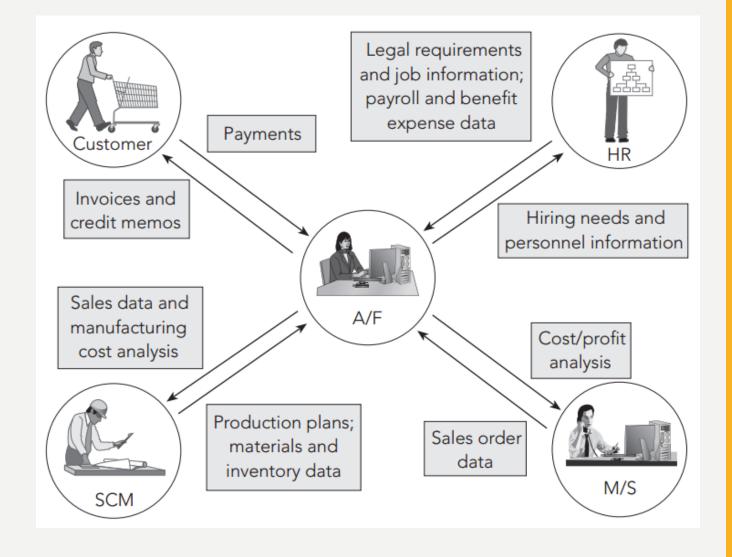


Accounting and Finance

- Accounting and Finance personnel record the company's transactions in the books of account (which often are computerized records). For example, they record accounts receivable when sales are made and cash receipts when customers send in payments.
- In addition, they record accounts payable when raw materials are purchased and cash outflows when they pay for materials.
- Finally, Accounting and Finance personnel summarize the transaction data to prepare reports about the company's financial position and profitability

Accounting and Finance [2]

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



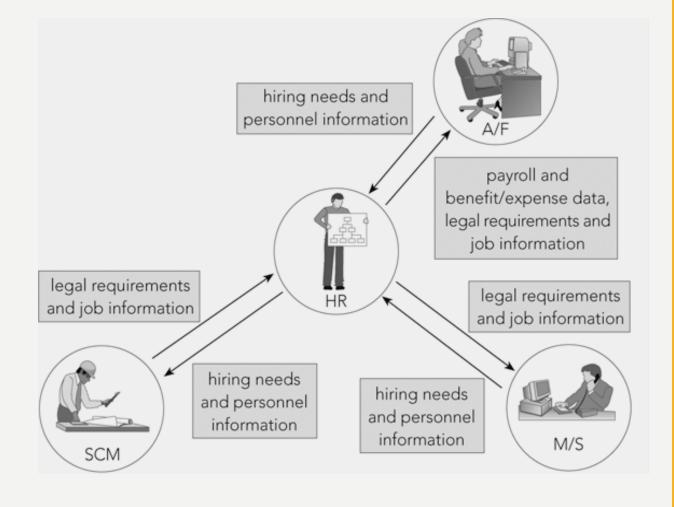
Human Resources



- HR needs information from the other departments
- Tasks related to employee hiring, benefits, training, and government compliance are all responsibilities of HR
- HR needs accurate forecasts of personnel needs from all functional units
- * HR needs to know what skills are needed to perform a particular job and how much the company can afford to pay employees
- Observing governmental regulations in recruiting, training, compensating, promoting, and terminating employees.

Human Resources [2]

The Human Resources functional area exchanges data with the Accounting and Finance, Marketing and Sales, and Supply Chain Management functional areas.





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