

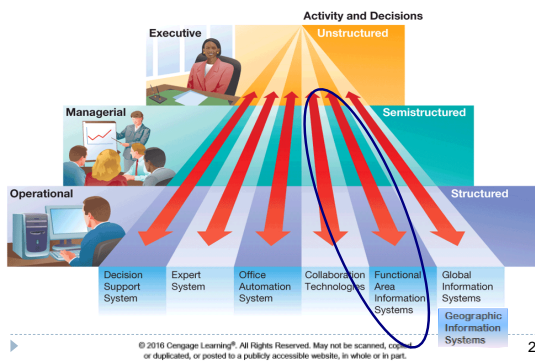
ACS-1803
Introduction to Information Systems

Instructor: Kerry Augustine

Functional Area Systems –
Accounting Transaction Systems

Lecture Outline 4, Part I

Organizational Information Systems



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Overview

- ▶ Overview of Functional Areas in the organization
- ▶ Functional Area: Accounting
- ▶ Accounting Information Systems
- ▶ The GL system – Accounting Basics
- ▶ Accounting Transactions and Terminology
- ▶ Accounting System implementation

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Functions in an organization

- ▶ An organization is composed of one or more business functional areas
 - ▶ Business functions should all support the main Mission and Vision of an Organization
- ▶ Major functions of a business:
 - ▶ Finance / Accounting
 - ▶ Human Resources
 - ▶ Sales / Marketing
 - ▶ Production Operations
 - ▶ Manufacturing
 - ▶ Retail
 - ▶ Services

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4

Functional Area Systems

- ▶ Traditionally, information systems were designed to support a specific functional area to increase its internal effectiveness and efficiency
- ▶ **Functional area information systems** provide information mainly to lower and middle level managers in the **functional areas**. They use the information to help them plan, organize, and control operations. The information is provided in a variety of reports

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5

Functional Area Information Systems

- ▶ **Finance**: provide internal and external professional access to stock, investment and capital spending information.
- ▶ **Accounting**: similar to financial MIS, more focused on cash flow management, invoicing, payroll, receivables.
- ▶ **Marketing**: pricing, distribution, promotional, and information by customer and salesperson.
- ▶ **Operations (Manufacturing)**: regular reports on production, yield, quality, inventory levels. These systems typically deal with manufacturing, sourcing, and supply chain management.
- ▶ **Human Resources Management**: employees, benefits, hiring, etc.

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6



Functional Area Information Systems

System Description	Examples	Functional Area?
Used for managing, controlling, and auditing the financial resources of the organization	<ul style="list-style-type: none"> • Inventory Management System • Accounts payable • Expense Accounts • Cash Management • Payroll Processing 	
Used for Managing, controlling, and auditing the Human Resources of the organization	<ul style="list-style-type: none"> • Recruiting • Learning Management Systems • Benefits Management • Employee Termination • Workforce Planning 	
Used for Managing new product development, distribution, pricing, promotional effectiveness, sales forecasting,...	<ul style="list-style-type: none"> • Market Research • New Product Development • Promotion and Advertising • Pricing and Sales Analysis • Product location 	
Used for managing, controlling, and auditing production and operations resources	<ul style="list-style-type: none"> • Inventory Management • Cost and quality tracking • Materials and resource planning • CMS • Resource Utilization 	

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Accounting System Processes and Transactions
 Functional Area Systems



Functional Area Systems: Accounting

- ▶ An Accounting Information System (AIS) monitors/ documents the operations of the aspects of business operations that have to with:
 - ▶ accountability for the assets/liabilities of the enterprise
 - ▶ the determination of the results of operations leading to the computation of comprehensive income
 - ▶ the financial reporting aspects of business operations.
- ▶ Evidence of financial transactions must be contained in one main accounting system that is capable of producing (at least) two main financial statements that are required for a business: **the balance sheet and the income statement.**

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Accounting Information System (AIS)

- ▶ By Definition, accounting is a data collection, identification and storage process, as well as an information system
 - ▶ AIS collects, records, stores and processes accounting and other data to produce information
- ▶ AIS helps managers answer questions such as:
 - ▶ How much, and what kind of debt is outstanding?
 - ▶ Were sales higher this period than last?
 - ▶ What assets do we have?
 - ▶ What were our cash outflows and inflows?
 - ▶ Did we make a profit last period?



Business Processes – Transaction Cycles

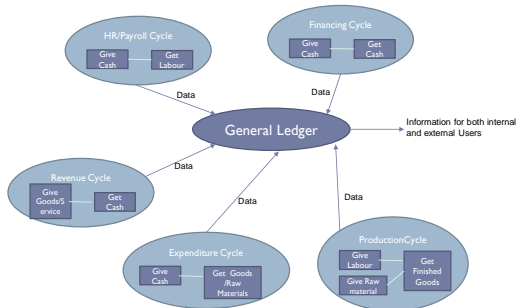
- ▶ Many business activities are part of events involved in a give-get exchange.
- ▶ Organizations engage in many of those give-get exchanges e.g giving cash in exchange for something, or giving employees a paycheque in return of their labour
- ▶ To properly gather data needed to support processes and to create information for decision-making, businesses must identify their business processes as groups of those give-get exchanges – those are known as **Transaction Cycles**.
 - ▶ Then they can record data (TPS) as those business processes occur.
- ▶ These cycles process a few related transactions repeatedly



Transaction Processing Cycles

- ▶ Revenue Cycle: Goods and Services are sold for Cash or a future promise to receive cash
- ▶ Expenditure Cycle: Companies purchase raw materials to use in productions, or inventories for resale in exchange for cash or a future promise to pay cash
- ▶ Production or Conversion Cycle: Raw materials transformed into finished goods
- ▶ Human Resources/Payroll Cycle: Employees are hired, trained, compensated, evaluated, promoted, and terminated
- ▶ Financing Cycle: Companies sell shares to investors and borrow money, where investors are paid dividends and interest is paid on loans

AIS Subsystems



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13

Accounting TPS: Transaction Cycles

- ▶ Every Cycle can be implemented on Information Systems with modules for each cycle.
 - ▶ Not every organization needs to implement every module
- ▶ Each Cycle can include many different processes and activities
- ▶ The last activity in each cycle, is to send appropriate information to other cycles
- ▶ In the end all the data ends up in the General Ledger and Reporting System, which is the information-processing operation involved in updating the general ledger and preparing reports for both managers and external parties

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14

Revenue Cycle

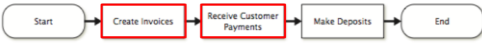
Source Document	Function
Sales order	Take customer order.
Delivery ticket	Deliver or ship order
Remittance advice	Receive cash.
Deposit slip	Deposit cash receipts.
Credit memo	Adjust customer accounts

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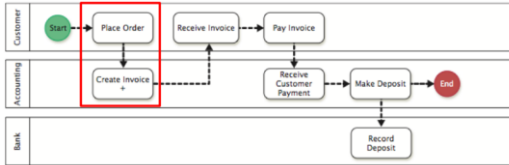
15

Sales Cycle Activities

▶ Flow Chart:



▶ Swimlane:



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Understanding the Accounting Process Model for a Customer/Sales Transaction

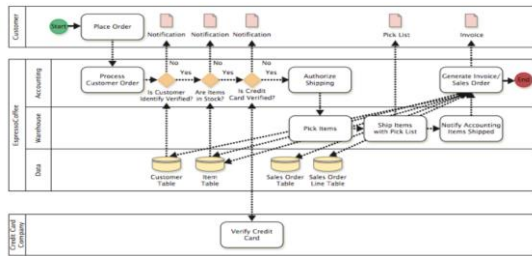
▶ Let's examine the baseline accounting process for a customer/ sales transaction within a company:

- ▶ Company: Online Retailer
 - ▶ Customer places an online order
 - ▶ Order is processed on the system
 - ▶ The order shipment is confirmed and sent to the warehouse – which fulfills the order, ships the product and notifies Accounting
 - ▶ Accounting generates the invoice and sends to the customer

▶ How do we design the accounting/sales system to manage this business process?

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Customer Module: Process Order



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Expenditure Cycle

Source Document	Function
Purchase requisition	Request items.
Purchase order	Order items.
Receiving report	Receive items.
Check	Pay for items.

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19

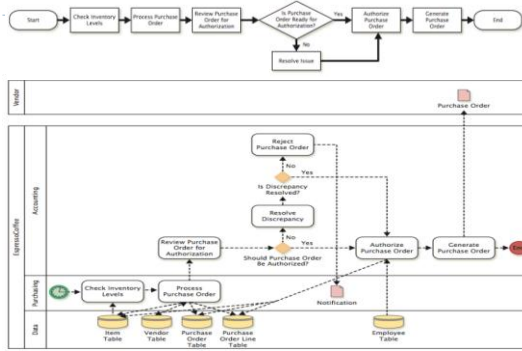
Accounting Process Model for a Purchase Order Transaction

- ▶ Examine the baseline accounting process for a purchase order transaction within a company:
 - ▶ Company: Online retailer
 - ▶ Create a purchase order for the supplier
 - ▶ The order shipment is confirmed and sent to The warehouse – which receives the order into inventory
 - ▶ The warehouse generates a receiving report and updates Accounting
 - ▶ Accounting receives the bill from the supplier and matches to the receiving report – processes bill

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20

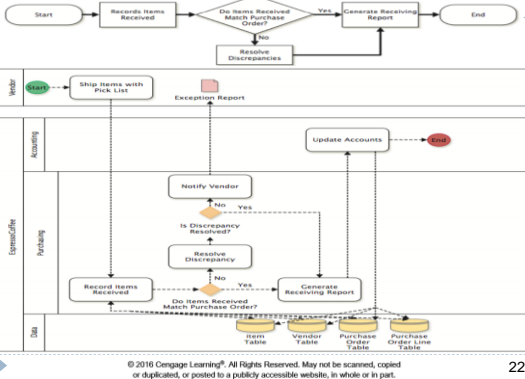
Purchase Order Process



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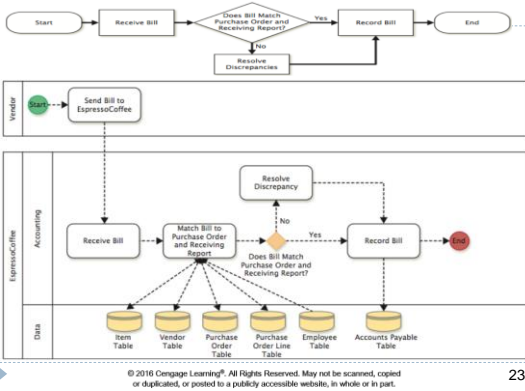
21

Receive Items Process



22

Process Bill



23

Summary

- ▶ Functional Area Systems
- ▶ Accounting Functional Area
 - ▶ Definition
 - ▶ Transaction Processing Cycles
 - ▶ Modeling Transactions

24
