

Enterprise Resource Planning (ERP)

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Is Information System an ERP ?

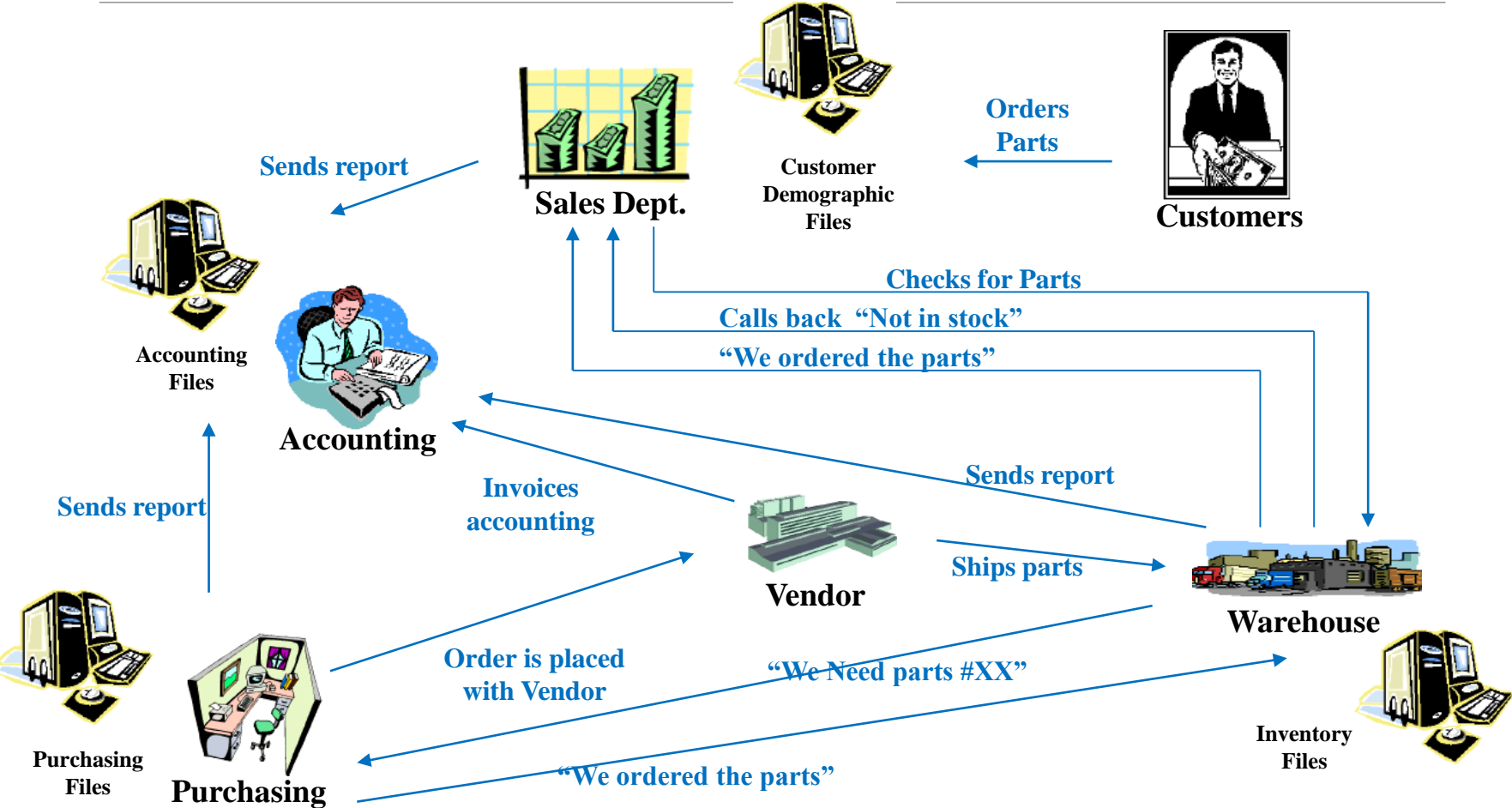
- In most cases **NO**
- **Information System (IS):** an integrated set of components for collecting, storing, and processing data and for delivering information, knowledge, and digital products.
- A Company could have several Information Systems for their operation, but as long as those IS are working separately → This company doesn't have an ERP



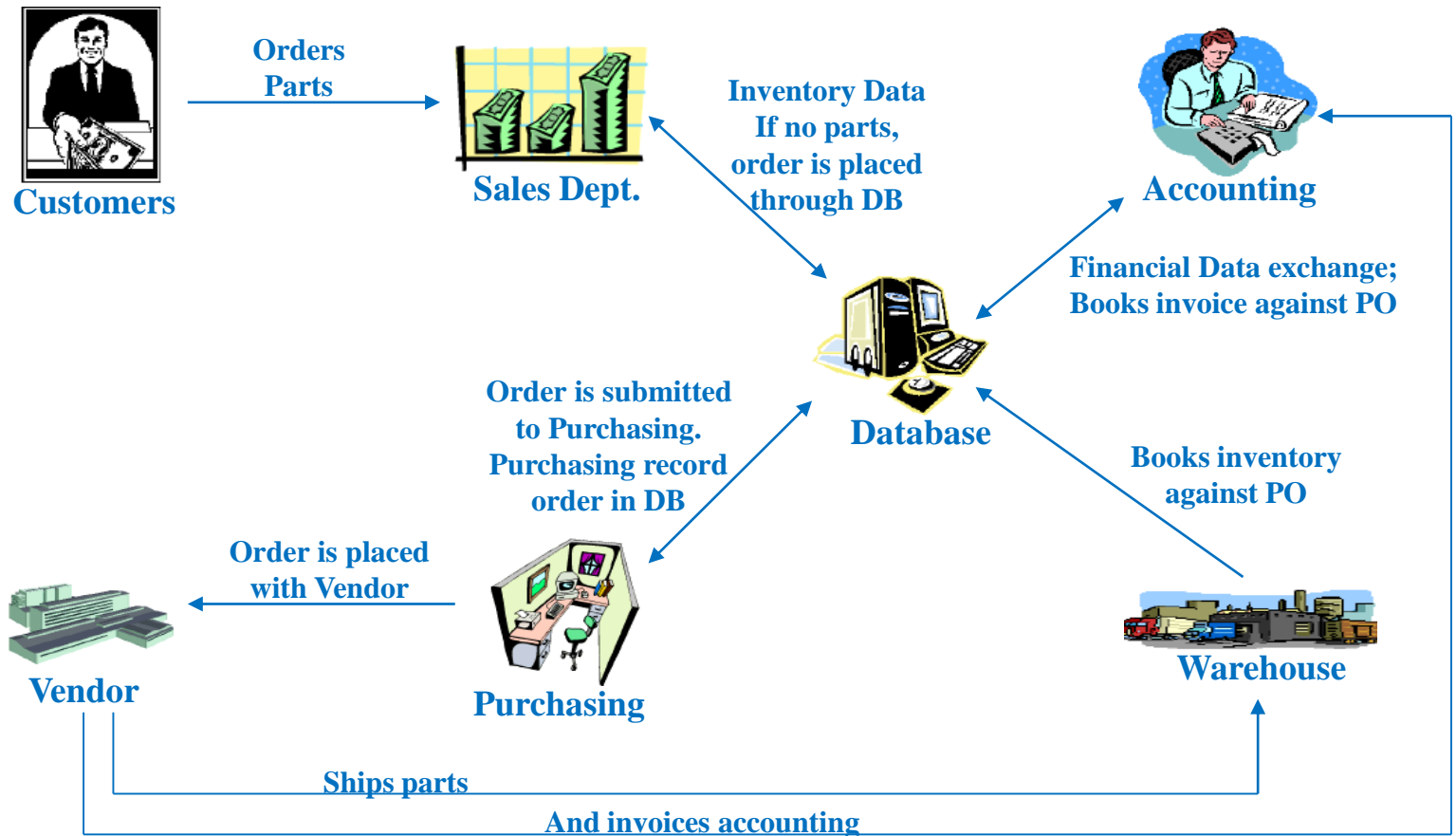
What is ERP ?

- An ERP system is an attempt to integrate **all functions** across a company to a single computer system that can serve all those functions' specific needs.
- **“Integration”** is the key word for ERP implementation.
- It may also integrate key **customers** and **suppliers** as part of the enterprise's operation.
- It provides integrated database and custom-designed report systems.
- It adopts a set of “best practices” for carrying out all business processes.

An Example: Before ERP



An Example: After ERP



Potential benefits of ERP: Internal

- Integration of a single source of data
- Common data definition
- A real-time system
- Increased productivity
- Reduced operating costs
- Improved internal communication
- Foundation for future improvement
- Less paperwork & no need for folder storage

Potential benefits of ERP: External

- Improved customer service and order fulfillment
- Improved communication with suppliers and customers
- Enhanced competitive position
- Increased sales and profits

Risk of ERP implementation

- Expensive (can costs 100 thousands to millions of dollars)
- Time-consuming (can take months to years)
- Great risk for the organization
- Transfer of Knowledge
- Acceptance with the company

Major Phases of ERP Implementation

- Initiation – develop business case, project scope, and implementation strategy
- Planning – establish implementation team, determine goals and objectives, establish metrics
- Analysis and process design – analyze and improve existing processes, map new processes to be adopted by the system
- Realization – install a base system, customization, and test the system
- Transition – replace the formal system with the new system, data conversion
- Operation – monitor and improve system performance, provide continued training and technical support

Key factors for successful ERP implementation

- Commitment by top management
- Excellent project management
- Organizational change management
- Extensive education and training
- Data accuracy
- Multi-site issues
- A great implementation team
- Focused performance measures
- Clear understanding of strategic goals

ERP project and time

- Real transformational ERP efforts will usually run between 1 to 3 years, on average.
- Short implementations (3 to 6 months):
 - small companies,
 - implementation limited to a small area of the company, or
 - the company only used the financial pieces of the ERP system.
- The important thing is not to focus on how long it will take but to understand why you need ERP and how you will use it to improve your business.

TCO of ERP

- **Total Cost of Ownership (TCO):** a model developed by Gartner Group to analyze the direct and indirect costs of owning and using hardware and software. TCO essentially helps a company determine whether it wins or loses from specific technology implementations.
- Metagroup study among 63 companies surveyed showed that:
 - The average TCO was \$15 million (the highest was \$300 million and lowest was \$400k),
 - The average TCO per user was \$53,320.
- It also found that:
 - it took 8 months after the system was in to see any benefits,
 - but that the median annual savings from the system was \$1.6 million per year.

Hidden cost of ERP

- Training
- Integration and testing
- Data conversion
- Data analysis
- Consultants
- Replacing best and brightest staff after implementation
- Implementation teams can never stop
- Waiting for ROI
- Post-ERP depression

ERP main vendors

	SAP ERP Packages	Oracle ERP Packages	Microsoft Dynamics
Market Share	24%	18%	11%
Rates of Being Short-listed	38%	32%	24%
Selection Rates When Short Listed	19%	22%	14%
Satisfaction Rates	39%	80%	33%
Implementation Duration	13 months	11 months	14 months
Percentage of customers who realize payback within one to three years	57%	51%	74%
Percentage of Customers who Realized Payback in Less Than Three Years	69%	60%	84%
Delta Between Planned Project Costs and Actual Project Costs	8% (\$19 million planned vs. \$20.6 million actual)	15% (\$1.4 million planned vs. \$1.6 million actual)	14% (\$408,000 planned vs. \$464,000 actual)
Percentage of Customers who Realized Less Than 60-percent of Anticipated Business Benefits	67%	63%	76%
Percentage of Customers who Realized More Than 60-percent of Anticipated Business Benefits	33%	37%	24%



Question & Answer