

Management Information System

GLORIA PRATIWI WAANG, SE., MBA | Email: gloria@jiu.ac

5. Enterprise Systems



Learning Objectives

By the end of this session, students should be able to:

- Explain what enterprise systems are
- Understand the role of ERP in organizations
- Identify major enterprise applications (ERP, SCM, CRM)
- Understand the benefits and challenges of enterprise systems
- Analyze how enterprise systems support accounting and financial reporting
- Explain implementation challenges and risks



Imagine a growing company:

Sales team uses one system

Finance uses another system

Warehouse uses spreadsheets

HR uses manual records

What is going to be the result?



Customer places an order online.

Sales system records the order.

Inventory system is not updated.

Warehouse does not know stock level.

Finance does not know payment status.

What is going to be the result?

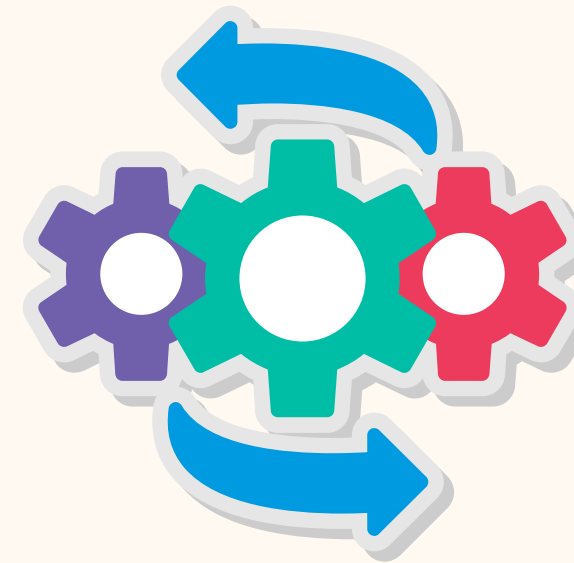


Result:

Information is scattered everywhere.
The customer received a late delivery.

Organizational Silos

Departments work independently:



Each department stores its own data.

Problems Caused by Data Silos

- Duplicate data entry
- Data inconsistency
- Slow decision making
- Poor customer service
- Higher operational cost



Example of Data Inconsistency

Customer address stored differently:

Sales system:
Jl. Sudirman No. 25

Finance system:
Sudirman Street 25

Logistics system:
Jl. Sudirman 25 Jakarta

Confusion happens.



Impact on Business Performance

Without integration:

- Managers lack real-time information
- Departments cannot coordinate efficiently
- Company cannot respond quickly to market changes



How can organizations ensure:

Accurate information?

Real-time data?

Efficient coordination?

Enterprise | | | | |
| | | | | Systems

WHY IT MATTERS

Digital Business Requires Integration

Modern organizations must operate:

- Fast
- Efficiently
- Accurately
- In real-time

Customers expect a quick response.



Image: Canva Library [francescoridolfi.com](https://www.francescoridolfi.com) from Rido

Importance of Integrated Information

Integrated information helps:

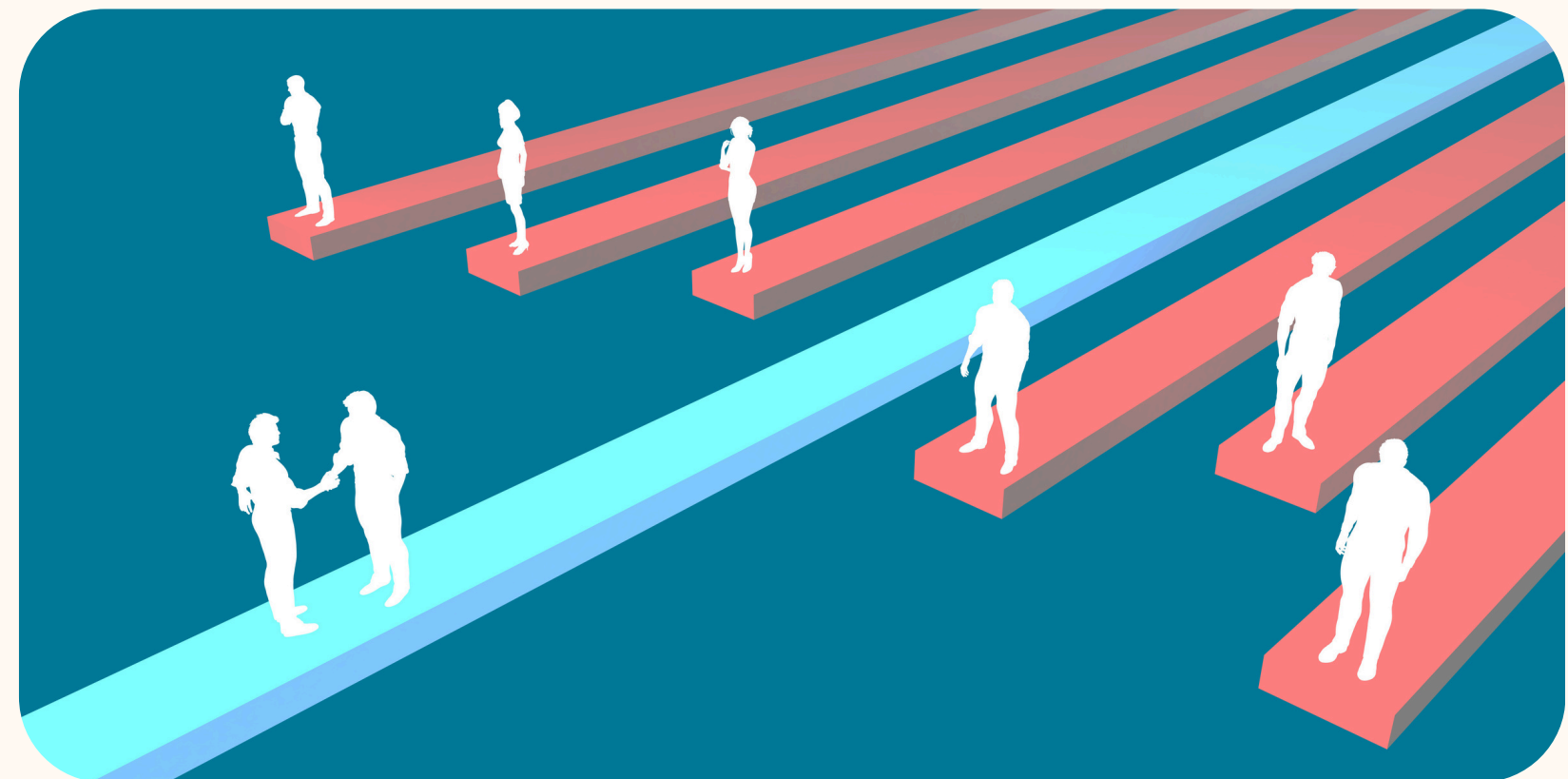
- Managers make better decisions
- Employees collaborate effectively
- Customers receive better service



Competitive Advantage

Companies using enterprise systems can:

- Reduce cost
- Improve efficiency
- Increase customer satisfaction
- Respond faster to market changes



Key Insight

Integration is not only about technology.

It is about improving:

- communication
- coordination
- decision making
- business performance

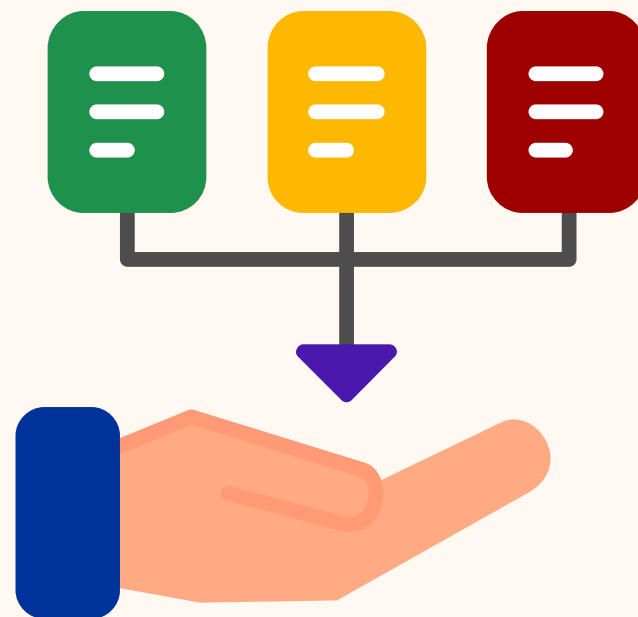


What is an Enterprise System?

Enterprise System:

A large-scale software system that integrates core business processes across departments into a single unified system.

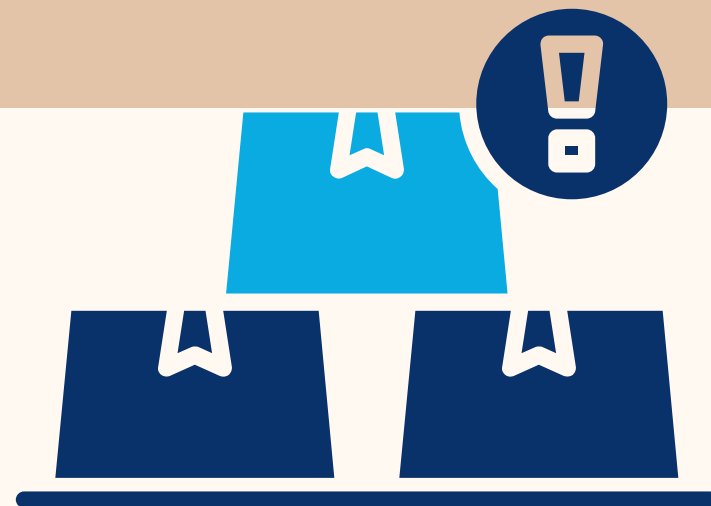
Key idea: Integration of data, processes, and people.



Traditional vs Enterprise Approach

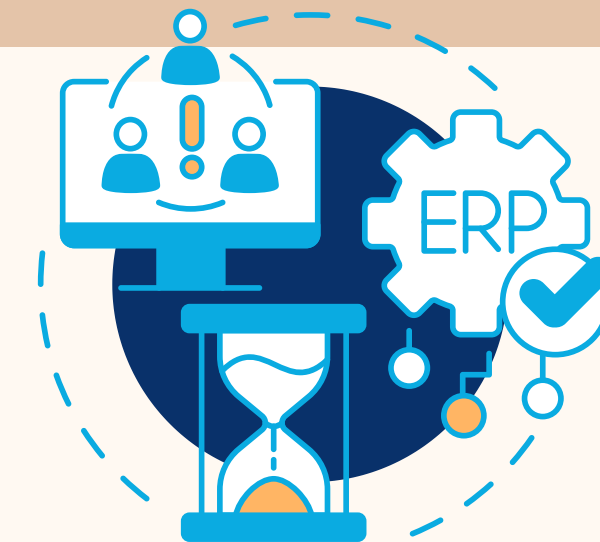
Traditional System

- Finance system separate from sales
- HR system separate from operations
- Data duplication



Enterprise System

- Single database
- Shared information
- Real-time updates



**Why do organizations
need integrated systems**



Core Components of Enterprise Systems

Enterprise systems typically include:



ERP

(Enterprise Resource Planning)



SCM

(Supply Chain Management)



CRM

(Customer Relationship Management)

ENTERPRISE RESOURCE PLANNING (ERP)

What is ERP?

ERP (Enterprise Resource Planning):

An integrated software platform that manages business processes across the entire organization.

ERP integrates:

Finance

Accounting

HR

Production

Sales

Procurement

ERP Example Vendors



Source: https://upload.wikimedia.org/wikipedia/commons/5/59/SAP_2011_logo.svg



Source: https://en.wikipedia.org/wiki/Oracle_Financial_Services_Software#/media/File:Oracle_Logo.svg



Source: <https://zahiraccounting.com/id/wp-content/uploads/2023/03/Logo-Zahir-Red-1.png>



Source: <https://www.modjo.ai/en/blog/how-to-log-in-to-microsoft-dynamics-365-login-guide>



Source: https://kamartekno.id/wp-content/uploads/2025/09/odoo_logo.png

ERP Example Vendors



Source: https://upload.wikimedia.org/wikipedia/commons/5/59/SAP_2011_logo.svg



Source: <https://corealm.com/what-is-sap-why-is-it-important/>

ERP Example Vendors



Source: <https://zahiraccounting.com/en/wp-content/uploads/2020/02/ERP-Chart.png>



Source: <https://zahiraccounting.com/id/wp-content/uploads/2023/03/Logo-Zahir-Red-1.png>

ERP System Architecture

ERP systems typically have:

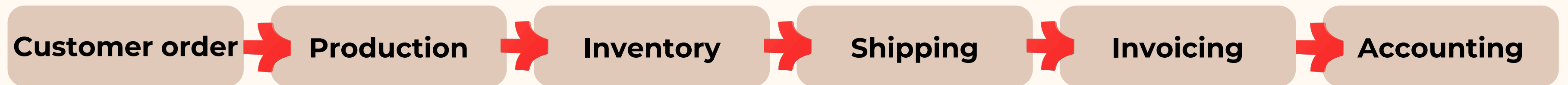
- Central database
- Application modules
- User interface
- Integration tools

All departments access the same data source.

ERP and Business Processes

ERP supports end-to-end business processes:

Example process:



All processes connected.

ERP Example Process Flow

When a sale happens, ERP automatically updates:

- inventory level
- financial records
- sales report
- production schedule



ERP and Internal Control

ERP supports internal control by:

- Access control
- Audit trail
- Data accuracy
- Segregation of duties

Important for financial accountability.

SUPPLY CHAIN MANAGEMENT (SCM)

What is Supply Chain Management?

Supply Chain:

Network of organizations involved in producing and delivering products.

Includes:

Suppliers

Manufacturers

Distributors

Retailers

Customers

SCM System Definition

SCM systems help manage:

- Procurement
- Production
- Logistics
- Inventory management
- Delivery



Goal: improve efficiency and reduce cost.

Example of SCM Flow

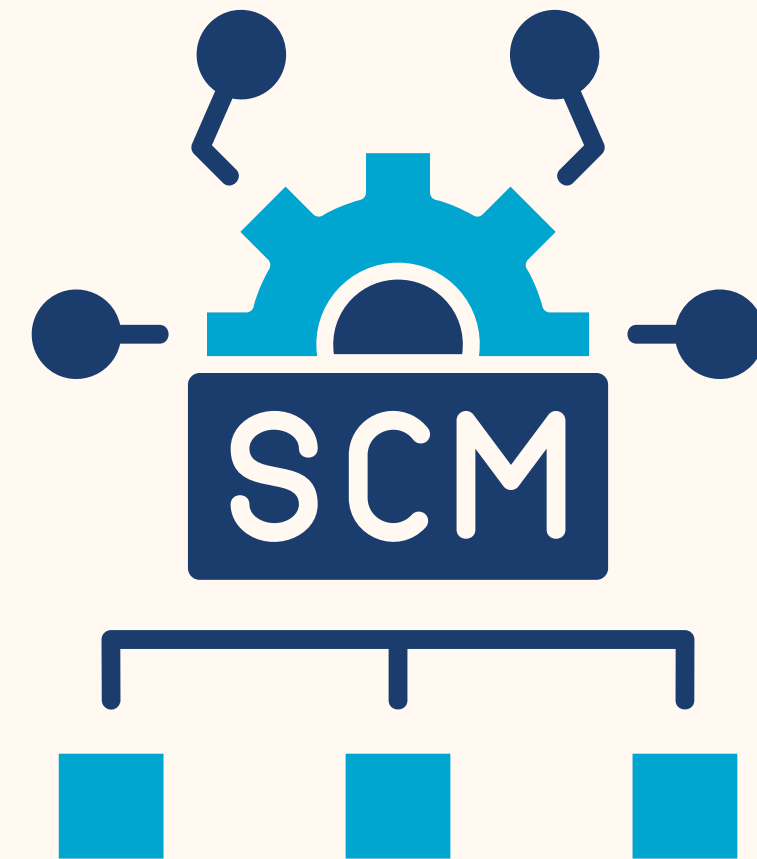
- Supplier provides raw materials
- Manufacturer produces product
- Warehouse stores goods
- Distributor delivers product
- Customer receives product



Benefits of SCM Systems

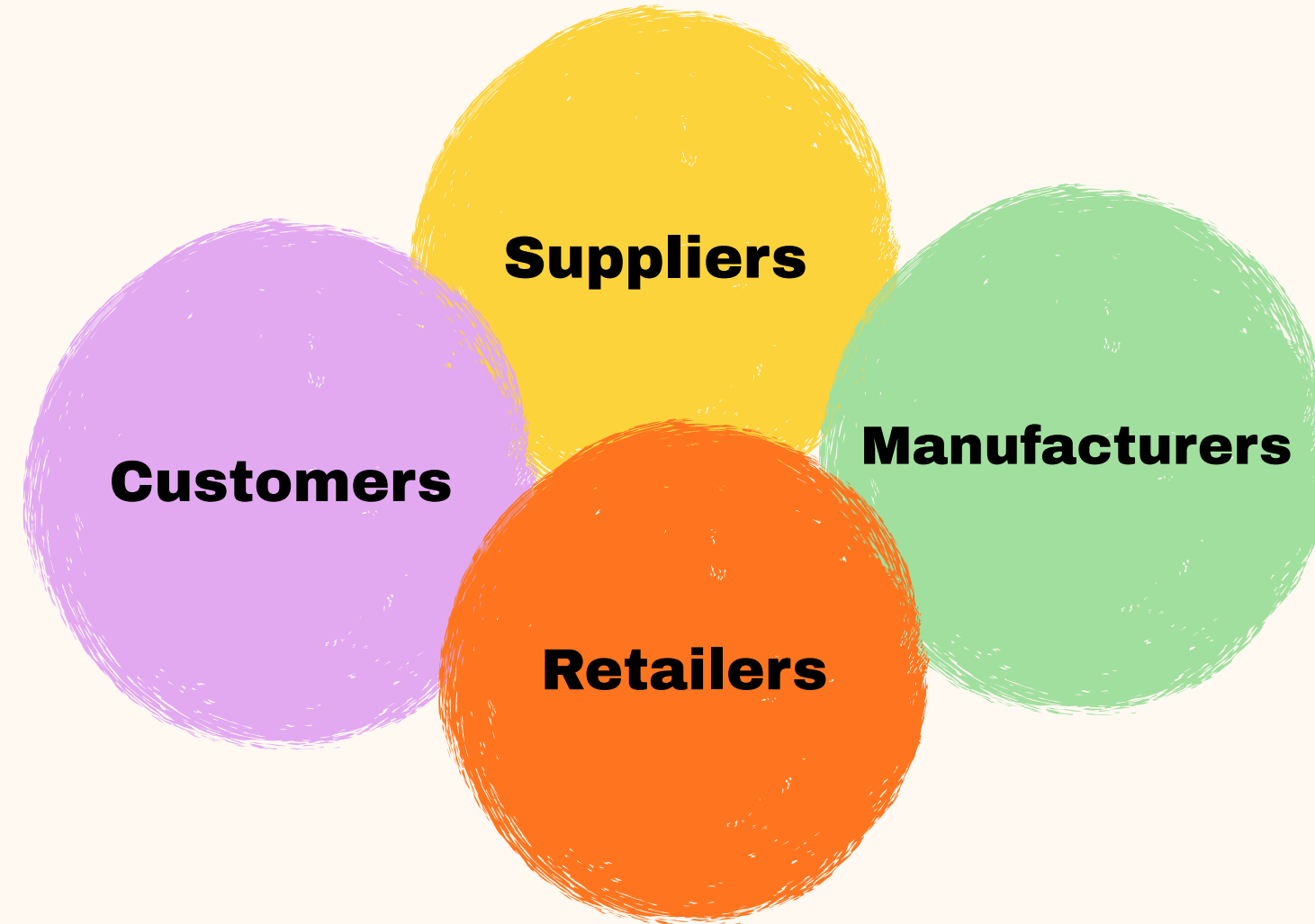
Benefits:

- Better demand forecasting
- Lower inventory costs
- Faster delivery
- Improved supplier coordination



SCM and Information Sharing

SCM requires information sharing between:



Information transparency improves decision-making.

CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

What is CRM?

CRM (Customer Relationship Management):
System used to manage customer interactions.

Focus:

Customer satisfaction and loyalty.

CRM Functions

CRM supports:



Goal: Improve customer experience.

CRM Example Activities

- Customer database management
- Sales tracking
- Customer support tickets
- Marketing campaigns
- Customer feedback analysis



CRM Benefits

- Better customer understanding
- Personalized marketing
- Improved customer retention
- Increased sales



ENTERPRISE SYSTEM INTEGRATION

Integration of ERP, SCM, and CRM

Enterprise systems work together:

- ERP → internal processes
- SCM → supply chain processes
- CRM → customer processes

Together, create full integration.

Enterprise Data Flow

Data flows across the organization:

Customer data → sales → accounting

Supplier data → purchasing → finance

Integrated data improves coordination.

**Why is data integration
important for decision-making?**



Strategic Benefits

Enterprise systems help organizations:

- Gain a competitive advantage.
- Improve customer satisfaction.
- Respond faster to market changes.

Supports digital transformation.

IMPLEMENTATION OF ENTERPRISE SYSTEMS

Enterprise System Implementation

Implementation involves:

- Planning
- Software selection
- Process redesign
- Training
- Testing
- Deployment



Challenges in Implementation

Common challenges:

- High cost
- Complex implementation
- Employee resistance
- Training needs
- System customization difficulties

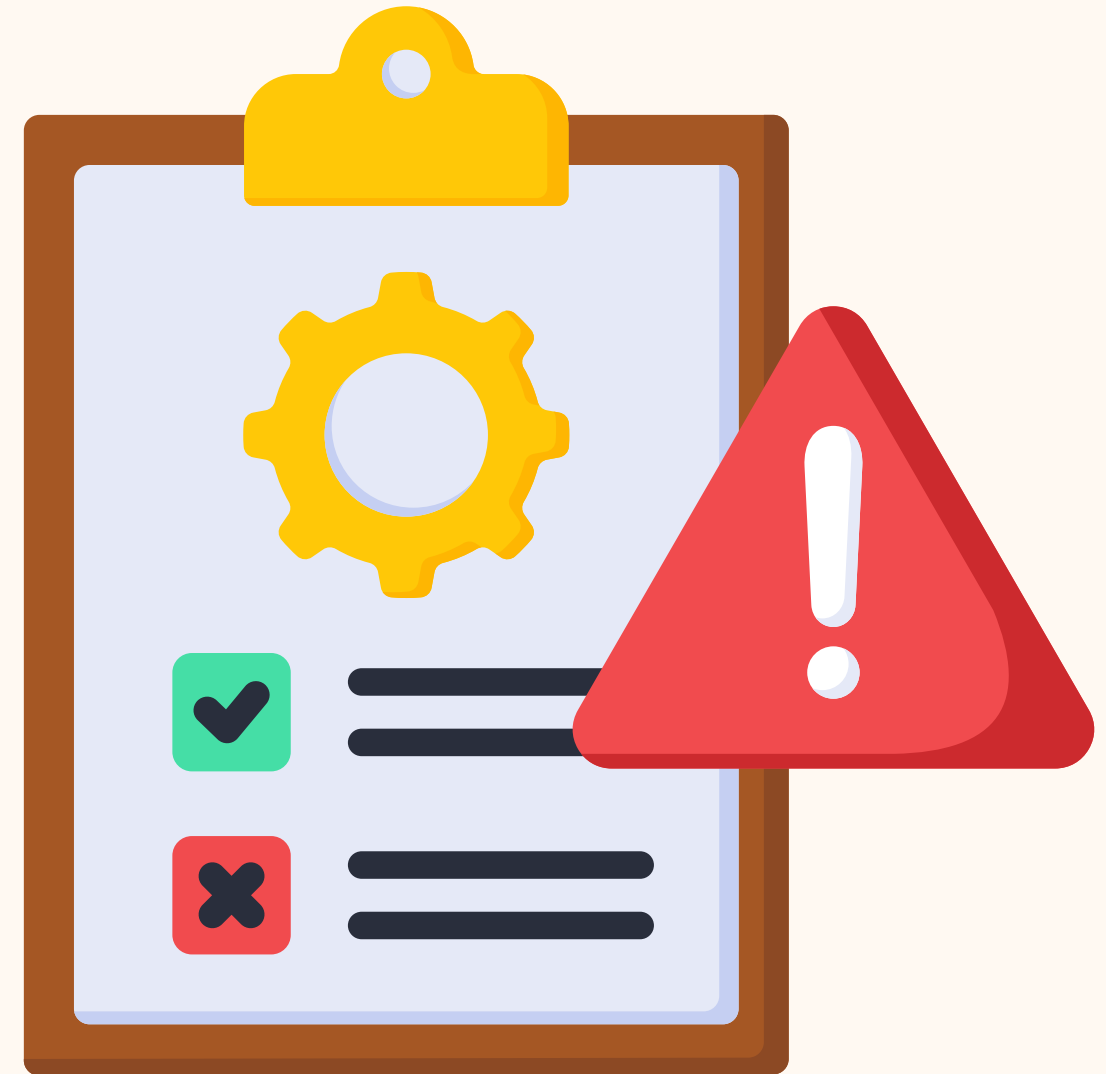


ERP Implementation Risks

Risks:

- Budget overrun
- Implementation delay
- Data migration problems
- Business disruption

Requires careful planning.



Critical Success Factors

Success depends on:

- Top management support
- Clear goals
- User training
- Change management
- Good project management



Example Implementation Case

- Company implements ERP
- Inventory automatically updated
- Financial reports generated faster
- Managers receive real-time information



FUTURE OF ENTERPRISE SYSTEMS

Cloud-Based Enterprise Systems

Modern enterprise systems use cloud technology.

Benefits:

- Lower cost
- Remote access
- Scalability
- Automatic updates

Example:

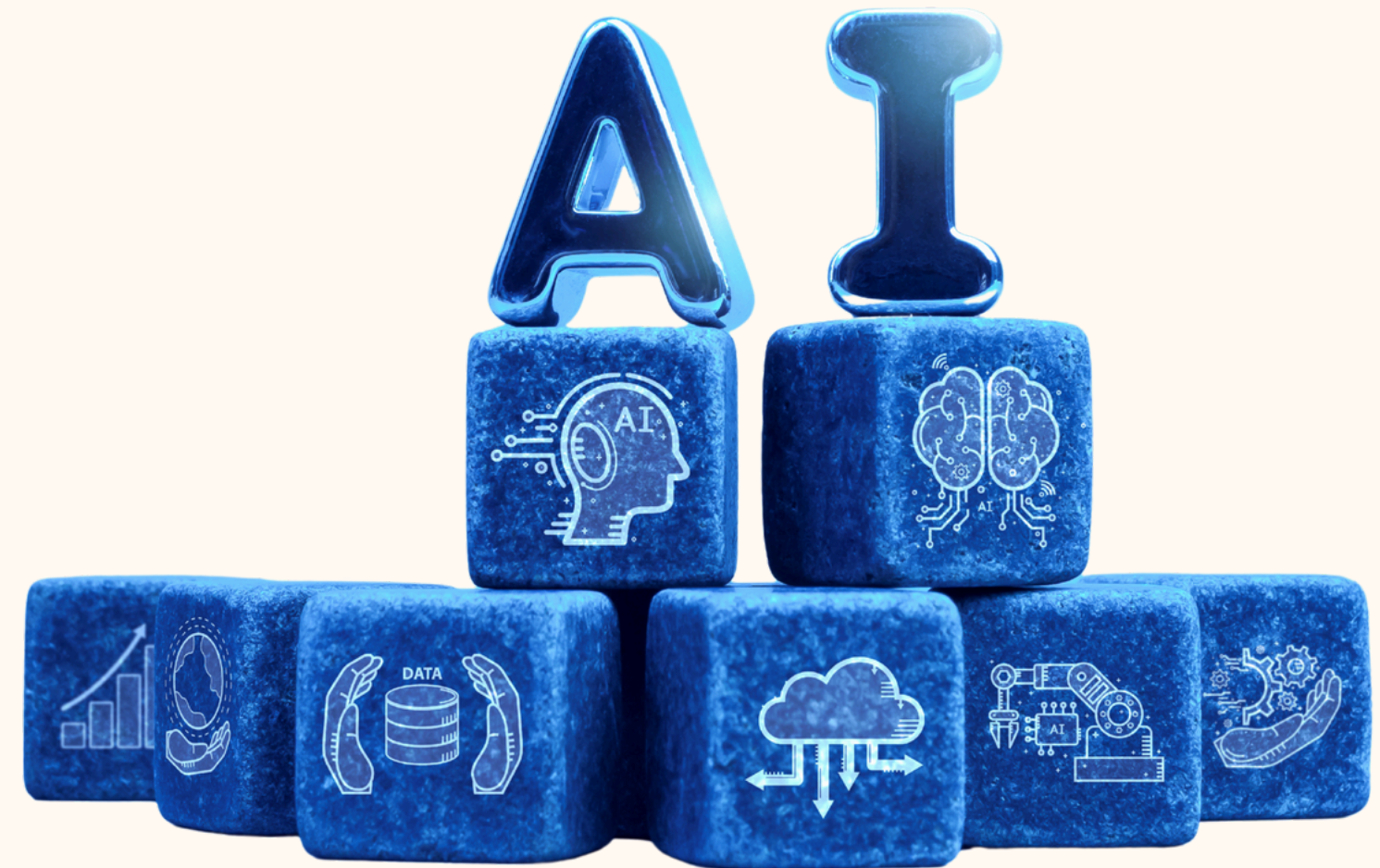
- Cloud ERP



Enterprise Systems and AI

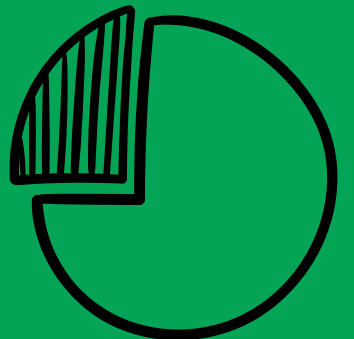
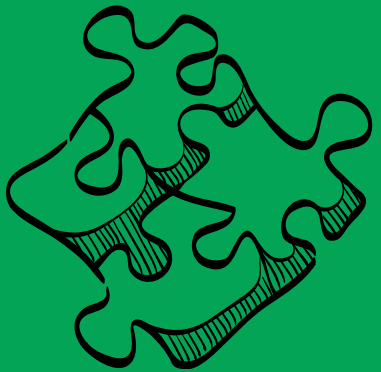
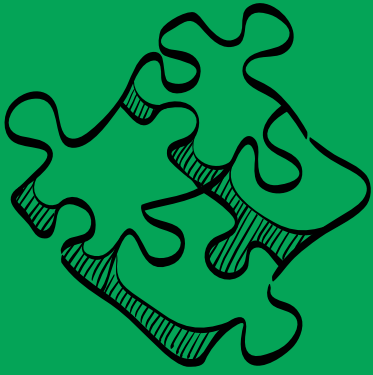
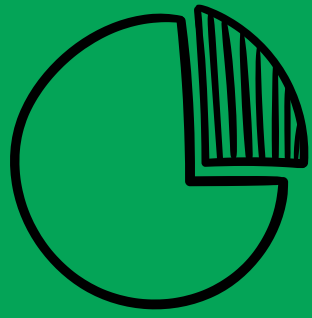
AI enhances enterprise systems:

- Demand prediction
- Customer behavior analysis
- Fraud detection
- Automation of routine tasks



Key Takeaways

- Organizations face problems due to **disconnected systems and data silos**.
- **Enterprise systems (ERP, SCM, CRM)** integrate the whole organization.
- They connect **people, processes, and data**.
- Organizations work as **one unified system**, not separate departments.
- Key skill: understand how everything is **connected**.
- Success comes from **using integrated data effectively**, not just having data.



Thankyou!