

E-business

E-business system - III



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E-business

Outline of the lecture



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- **ERP in e-business**

ERP



- An ERP (Enterprise Resource Planning) system includes core software components, often called modules, that focus on essential business areas, such as:
 - finance and accounting;
 - human resources;
 - production management;
 - materials management;
 - customer relationship management (CRM);
 - supply chain management.
- Organizations choose which core modules to use based on which are most important to their particular business.*

*<https://searcherp.techtarget.com/definition/ERP-enterprise-resource-planning>

ERP



- ERP systems rely on a centralized relational database, which collects business information and stores them in tables.*
- Having the data stored centrally allows end users, such as from finance, sales and other departments, to quickly access the desired information for analysis.*
- Instead of employees in different departments managing their own spreadsheets and reports, ERP systems allow for reporting to be generated from a single, centralized system.*
- Information updated in one ERP module, such as CRM, HR and finance, is sent to a central, shared database.*
- The appropriate information in the central database is then shared with the other modules.*

*<https://searcherp.techtarget.com/definition/ERP-enterprise-resource-planning>

ERP architecture



- ERP applications are most commonly deployed in a distributed and often widely dispersed manner.*
- While the servers may be centralized, the clients are usually spread to multiple locations throughout the enterprise.*
- Database component
 - the central repository for all of the data that is transferred to and from the clients;
- Clients
 - here raw data gets inputted, requests for information are submitted, and the data satisfying these requests is presented;
- Application component
 - acts as the intermediary between the client and the database.

ERP - benefits



- ERP offers a plethora of benefits, most of which come from information sharing and standardization.*
- Because ERP components can share data more easily than disparate systems, they can make cross-departmental business processes easier to manage on a daily basis.*
- They can also enable better insights from data, especially with the newer technologies that many ERP systems are including, such as powerful analytics, machine learning and industrial IoT capabilities.*

*<https://searcherp.techtarget.com/definition/ERP-enterprise-resource-planning>

ERP - benefits



- In addition, ERP software:*
 - boosts efficiencies by automating data collection;
 - enables business growth by managing increasingly complex business processes;
 - helps lower risk by enabling better compliance;
 - fosters collaboration using data sharing and integrated information;
 - provides better business intelligence and customer service capabilities; and
 - improves supply chain management.

ERP – components – Human resource



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- ERP HR module streamlines the management of human resources and human capitals.*
- HR modules routinely maintain a complete employee database including:*
 - contact information;
 - salary details;
 - attendance;
 - performance evaluation;
 - promotion of all employees.
- Advanced HR module is integrated with knowledge management systems to optimally utilize the expertise of all employees.*

*<https://www.erp-information.com/erp-hr-module.html>

ERP – components – Human resource



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- Submodules of ERP HR module:*
- Organizational Management;
- E-Recruitment;
- Time Management;
- Personal Administration;
- Payroll;
- Reporting.



*<https://www.erp-information.com/erp-hr-module.html>

ERP – components – Human resource



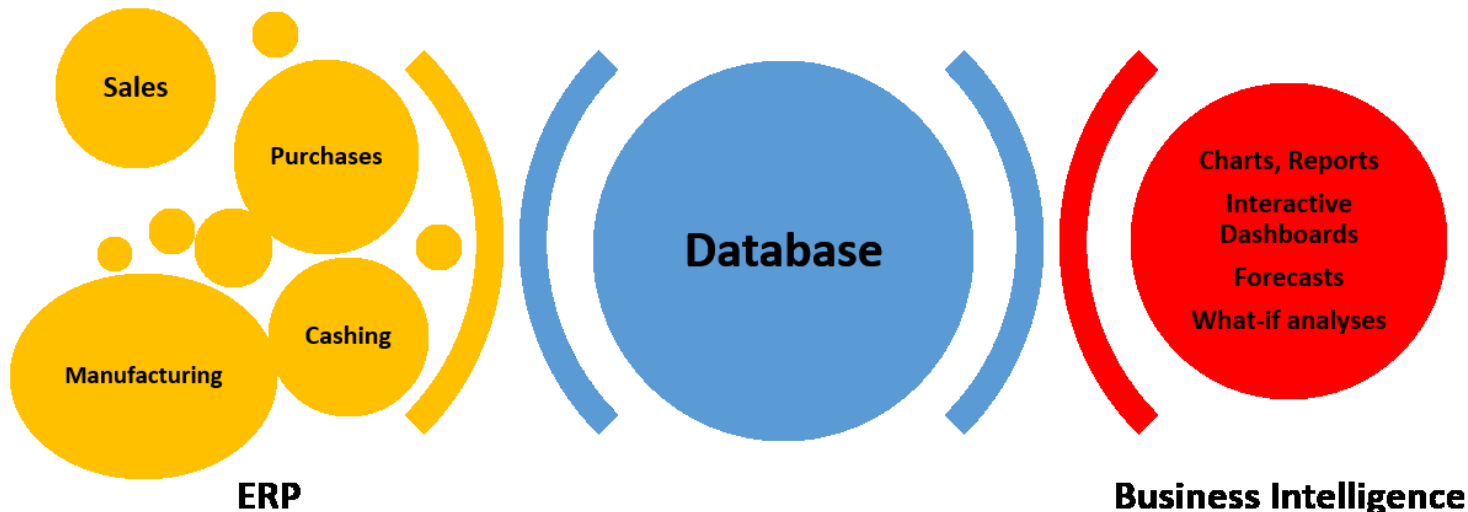
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ERP – components – Business Intelligence



- The BI component of ERP collects data and performs analysis that can provide actionable insights about business processes.*
- The best BI ERP components deliver insights in reports.
- A good reporting feature is very important in BI and enables you to make sense of the data being analyzed.*
- Some 1



*<https://sel>

**<https://www.seniorerp.ro/en/a-business-intelligence-solution-helps-you-discover-the-added-value-of-an-erp/>

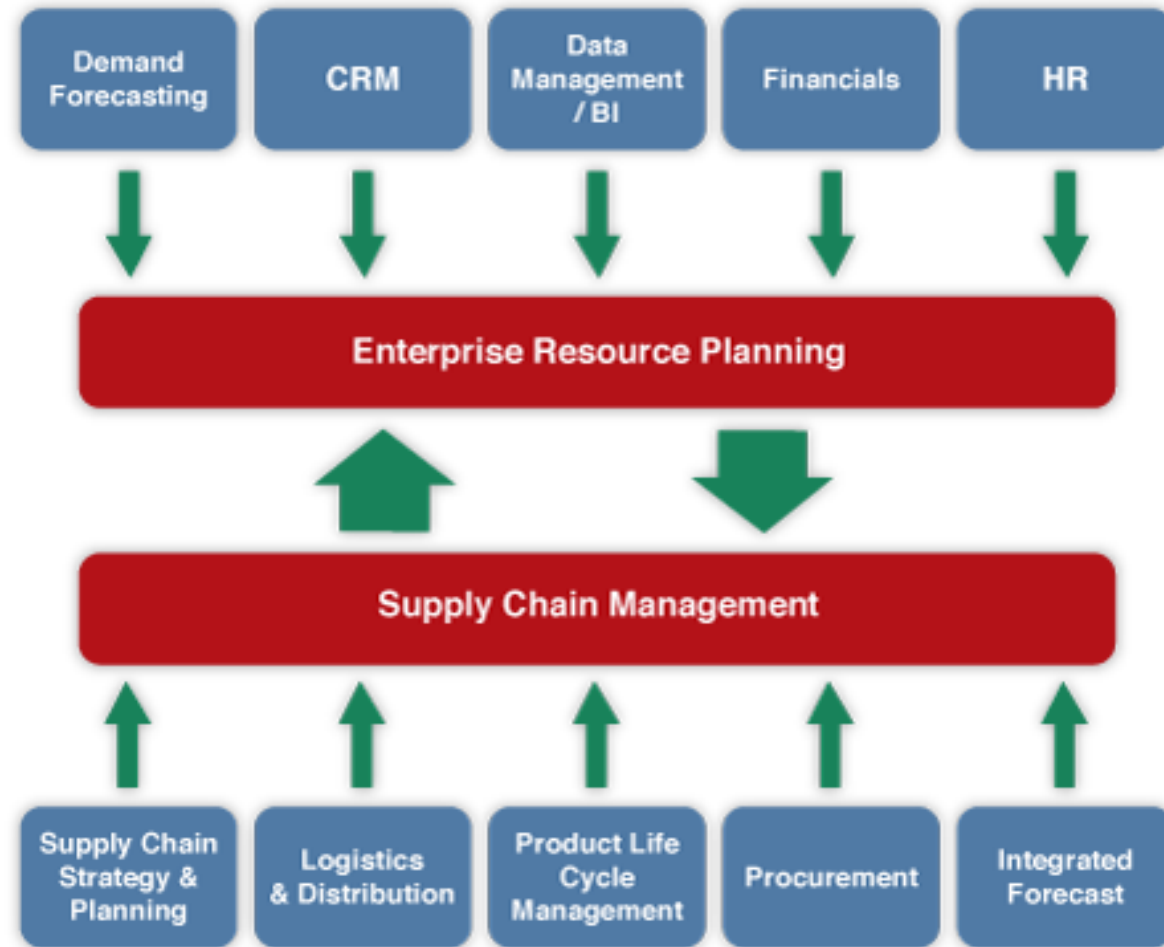
ERP – components – supply chain management

- Effective demand forecasting and lean inventory*
 - An ERP solution in SCM improves the accuracy of demand forecasting and ensures that the cost of inventory is minimized in case of large-batch production process.
 - A lean inventory is essential to address just-in-time production method to reduce the cost of production and keep supply chain flexible.
- Reduce production bottlenecks*
 - ERP for supply chain significantly reduces the bottlenecks between internal processes and external suppliers.
 - Modern solution helps in handling proper procurement and supply of the goods, services and other resources that are needed across the supply chain.

ERP – components – supply chain management



- Transparency through the business
 - The consolidated view of the supply chain enables the business executive make more informed and balanced decisions with ERP for supply chain.



*<https://www.deskera.com/erp-for-supply-chain-management/>

**<http://cmuscm.blogspot.com/2014/02/implementing-erp-for-supply-chain.html>

ERP – components – inventory management system



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- A component of supply chain management, inventory management supervises the flow of goods from manufacturers to warehouses and from these facilities to point of sale.*
- A key function of inventory management is to keep a detailed record of each new or returned product as it enters or leaves a warehouse or point of sale.*
- ERP inventory management, short for enterprise resource planning inventory management, refers to an integrated approach to business planning and operations.**
- With an ERP inventory management system, businesses can manage all their finances, logistics, operations, and inventory in one place.**

*<https://www.tradegecko.com/inventory-management/what-is-erp-inventory-management>

**<https://searcherp.techtarget.com/definition/inventory-management>

ERP – components – inventory management system



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- Typical features of an ERP inventory management system
 - Stock tracking and management;
 - Sales and purchase order management;
 - Multi-channel order fulfillment;
 - Warehouse management and stock transfers;
 - B2B eCommerce functionality;
 - Payment gateway functionality;
 - Integrations with eCommerce, accounting, shipping and other operational tools;
 - Intelligence reports and analytics.

ERP – components – inventory management system



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* <https://www.shopify.com/enterprise/ecommerce-logistics-at-scale>

** <https://ellogic.co/blog/how-to-implement-a-magento-erp-solution-for-ecommerce-without-spending-too-much-money-based-on-a-case-study/>

ERP in e-business and e-commerce



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The end



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Thank you for your attention!
Any questions?
