




Implementation of ERP system

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Enterprise information systems

- ▶ CRM - Customer Relationship Management
 - ▶ FMS - Financial Management System
 - ▶ SCM - Supply Chain Management
 - ▶ MIS - Management Information System
 - ▶ CMS - Content Management System
 - ▶ KMS - Knowledge Management System
 - ▶ DSS - Decision Support System
 - ▶ GIS - Geographic Information System
- 



What is ERP

- **Enterprise Resource Planning**, integrated system that help business to manage internal and external resources.
 - Built on a centralized database and normally utilizing a common computing platform,
 - ERP systems consolidate all business operations into a uniform and enterprise-wide system environment
 - ERP can integrates all systems mentioned before
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Providing ERP

Inventory, MRP,
Production, Project,
Accounting, CRM,
HRM, etc.

ERP

ERP as a
Service

1960

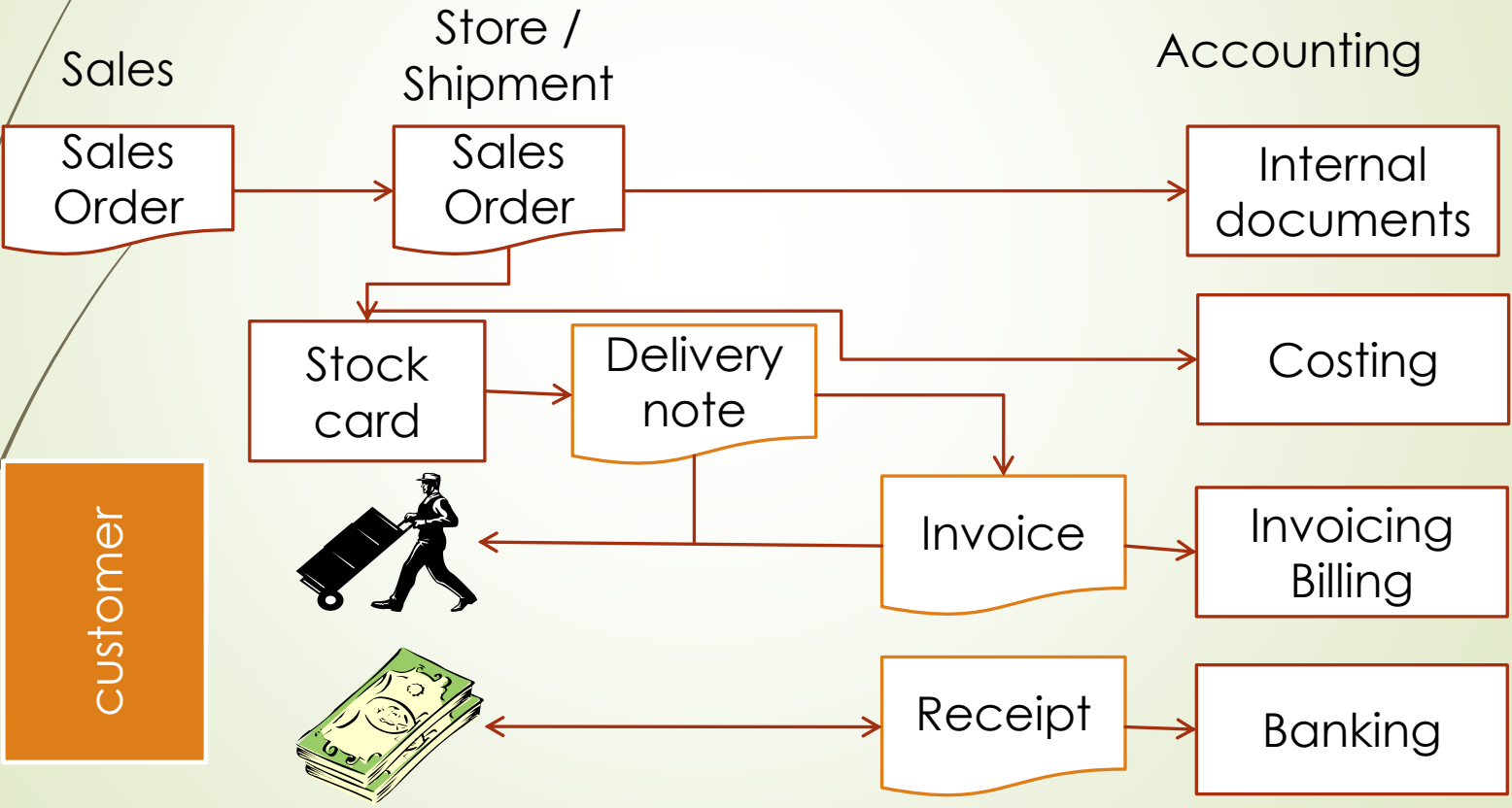
1990

2000




Example

ERP





Basic facts

- Every (even) small economic activity produce a lot of documents
 - Problems
 - Managing all the documents together with their relations (metadata)
 - Consistency of the documents
 - Part of them is basis for the taxations
 - We do not need to store data only
 - We need them back!
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Critical situation



- When organization has not any ERP system at all
 - Small or beginning companies
- When they have bad system or their system is out of date, not power enough etc.
 - Growing companies
 - Join ventures

How to recognize problem?

Microsoft Excel - Cash Flow Accounting TemplatesDemo3.0

File Edit View Insert Format Tools Data Window Help

Q10

My business name

Cash Accounting for > **April-06** Import April Budget Not operative 31-May-06

Opening Cash c/f \$1,000.00

Income	CURRENT MONTH					NEXT MONTH Budget
	Categories	Cash received	Current receivable	Budget	+/- Budget	
	Cash sales	0.00	0.00	0.00	0.00	0.00
	Return refund	0.00	0.00	0.00	0.00	0.00
	Sales - receivable	37,068.79	27,234.56	74,000.00	-9,696.65	77,500.00
	Interest, other income	0.00	0.00	0.00	0.00	0.00
	Other receipts	0.00	0.00	0.00	0.00	0.00
	Total receipts to date	37,068.79	27,234.56	74,000.00	-9,696.65	77,500.00

Less disbursements	CURRENT MONTH					NEXT MONTH Budget
	Categories	Cash out	Current payable	Budget	+/- Budget	
	Purchase for resale	-4,873.45	-3,445.90	-14,945.00	6,625.65	-14,645.00
	Staff Salaries	-14,856.90	0.00	-29,000.00	14,143.10	-29,150.00
	Employer taxes	0.00	-1,954.45	-3,610.00	1,655.55	-3,620.00
	Insurance (other than health)	0.00	0.00	0.00	0.00	0.00
	Interest expense	0.00	0.00	0.00	0.00	0.00
	Office supplies	0.00	-784.56	0.00	-784.56	0.00
	Meals and entertainment	0.00	0.00	0.00	0.00	0.00
	Warranties	-5,034.45	0.00	0.00	-5,034.45	0.00
	Office rent & services	-15,000.34	0.00	-15,000.00	-0.34	-15,000.00
	Staff Expense	0.00	-500.34	0.00	-500.34	0.00
	Auto expenses	0.00	0.00	0.00	0.00	0.00
	Packaging	0.00	0.00	0.00	0.00	0.00
	Advertising	3,440.56	-3,440.56	-4,000.00	559.44	-5,000.00
	Shipping	0.00	0.00	0.00	0.00	0.00
	Utilities	0.00	-1,224.23	-1,000.00	-224.23	-1,000.00
	Security	0.00	0.00	0.00	0.00	0.00
	Telecoms	0.00	-1,100.45	-900.00	-200.45	-900.00
	Computing	0.00	0.00	0.00	0.00	0.00
	Audit	0.00	-4,000.00	-3,500.00	-500.00	0.00
	Legal	0.00	0.00	0.00	0.00	0.00
	Sales Taxes	0.00	0.00	0.00	0.00	0.00
	Consultants	0.00	0.00	0.00	0.00	0.00
	Other expenses	0.00	0.00	0.00	0.00	0.00
	Equipment lease	-1,550.00	0.00	-1,500.00	-50.00	0.00

THIS MONTH FORECAST	
Income received	37,069.79
Expenses paid	-41,315.14
Balance	-4,246.35
Receivable this month	27,234.56
Payable this month	-22,950.49
Balance	4,284.07
Forecast Surplus/Deficit	37.72
Forecast Month end cash	1,037.72

This Cash Flow Statement is created from figures imported from the Current Month spreadsheet, sorted into Category totals.

License / Welcome / Capacities / Excel / Part 1 / Set Up / Cash Budget / Current Month / Cash Accounting / Part 2

Ready




How to identify out dated system?

- You need to enter data more than 1 time
 - To the accounting and than to internet banking
- You are not able to use modern ways of collaboration (document sharing)
- Your system has technical problems, it freezes or crash very often
- Your system is no longer supported
- Your system is not compatible with other systems you use (e-shop)
- You need more than 30 minutes to crate report



Basic modules in ERP system

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- Sales – from the order to invoice
 - Purchases – from order to invoice
 - Banking and cash
 - Warehouse
 - Property and inventory
 - Human resources
 - Relation with customers
 - Accounting



Outside connections to and into ERP system

- Banks and payment systems
- POS
 - Trade
 - Restaurants / Hotels
 - Others
- Document management
- Content management system
 - Web shop
 - Intranet
- Other specialized systems
 - DSS, MIS...




Features of „ideal“ ERP system

- Optimizes and simplifies the processes
- Centralize the information
- Optimizes data and document sharing
- Is accessible from everywhere
- It helps with your communication to your customers
- Accelerate report's generating
- Gets you complete information about status of your company
- Is open for the third party product (e-shops, Office, banking and payment systems, POS)




Value based objectives or ERP implementation

- What are customers expecting from ERP system?
 - How to validate the objectives?
 - What is their structure?
 - How are they organized?
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Fundamental objectives

- Minimize costs
 - Ensure ERP benefits realization
 - Enhance product and service improvement
 - Maximize customer relationship effectiveness
 - Based on study made by May, Dhillon and Caldeira
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Minimizing costs

- One of the main objectives
 - Structure of the main costs
 - Start-up
 - Implementation
 - Maintenance
 - Cost must be compared with the expected reduction of other costs of the company (return of investment)
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Ensure ERP benefits realization

- ▶ Depending of key areas
 - ▶ Knowledgeable and proactive organization
 - ▶ Proper change management control
 - ▶ Minimization of adaptation constraints
 - ▶ Clarity of investment objectives
 - ▶ Delivery of responsibility to individuals in the organization
 - ▶ ERP benefits depending on the level of customer and provider co-creation of the final value
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Enhance product and service improvement

- ▶ Key factors
 - ▶ Support of new product development
 - ▶ Any system that may be considered for adoption will support growth of existing product lines
 - ▶ ERP system enables the identification of new product opportunities
 - ▶ To ensure key factors ERP supplier needs to know and analyse customer's business
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Maximize customer relationship effectiveness

- ▶ Key factors
 - ▶ Support of the customer oriented processes
 - ▶ Ability to understand customer desires
 - ▶ Efficient marketing channel design
 - ▶ Critical for service organizations
 - ▶ Supplier needs to know the structure of customer segments, the ways of communication the customers are use to.
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Mean objectives

- Providing the way how the fundamental objectives can be reached
 - Important is also the sequence how the objectives are reached
 - Focus to objectives development is the key factor in value creation process
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- Creating environment inside and outside the organization
- Agreement among functional divisions
- Working relationships of external consultants and project

- ERP system processes fit organizational requirements
- ERP system processes fit existing business processes
- Business processes:
 - Administrative processes

- ERP system does not break or alter existing business processes

- Conformity to any professional standards

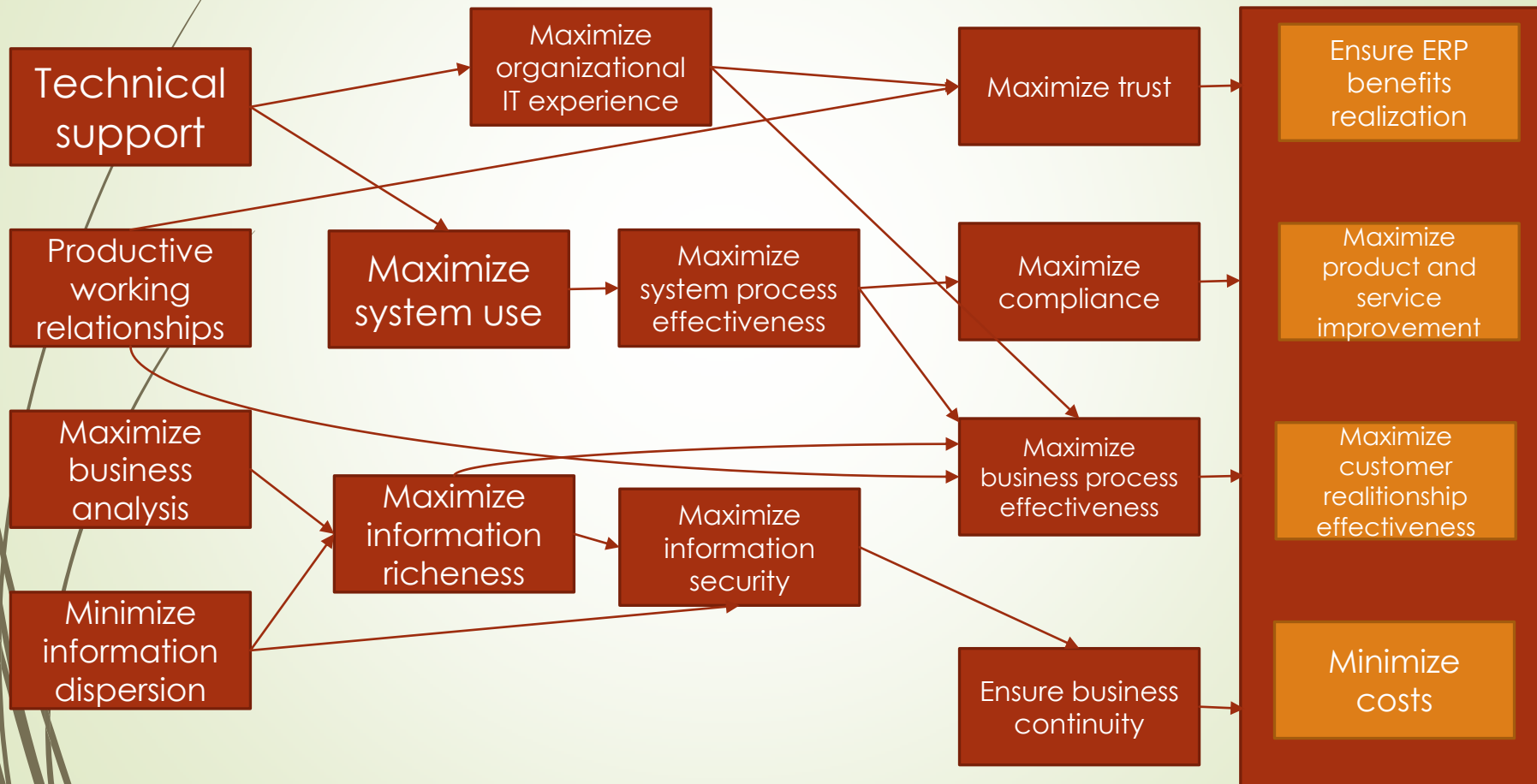
- ERP system can handle the data analysis

- Real time information for given users are up-to date and accurate

- Information will be available for appropriate users
- Minimizing data redundancy
- Maximizing data integrity
- Unauthorized access to business critical data is minimized

- Maximize system use
- Maximize information security

Mean and fundamental objectives






Important for cost calculation

- Commercial software
 - Licence
 - Customization can be limited
 - Only certified partner
 - Usually made on Microsoft platform
- Open source software
 - No fees for the licence
 - Customization can be done by anyone
 - Problem of partner finding
 - Made on Java, Python, php etc.



How manage the project

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- How long time will it take?
 - Who should participate?
 - What do you expect from ERP system?
 - How can management prepare themselves to this process?
 - Risks of the project of ERP implementation

Choosing Consultants and Vendors

- One person cannot fully understand a single ERP system
- Before choosing a software vendor, most companies:
 - Study their needs
 - Hire an external team of software consultants to help choose the right software vendor(s) and the best approach to implementing ERP

The Significance and Benefits of ERP Software and Systems

- More efficient business processes that cost less than those in unintegrated systems
- Easier global integration
- Integrates people and data while eliminating the need to update and repair many separate computer systems
- Allows management to manage operations, not just monitor them
- Can dramatically reduce costs and improve operational efficiency

Questions About ERP


- How much does an ERP system cost?
- Should every business buy an ERP package?
- Is ERP software inflexible?
- What return can a company expect from its ERP investment?
- How long does it take to see a return on an ERP investment?
- Why do some companies have more success with ERP than others?

How Much Does an ERP System Cost?

- Size of the ERP software
 - Corresponds to the size of the company it serves
- Need for new hardware that is capable of running complex ERP software
- Consultants' and analysts' fees
- Time for implementation
 - Causes disruption of business
- Training
 - Costs both time and money



How to manage the project

- ▶ Project can take from 3 months (small companies) to more than year
 - ▶ All departments involved to the work with ERP system should participate
 - ▶ Not only IT Department!!
 - ▶ First we must analyse company, its situation and than we look for suitable ERP system
 - ▶ The best solution is to make SWOT and develop strategies
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What Return Can a Company Expect from Its ERP Investment?

- ▶ ERP eliminates redundant efforts and duplicated data; can generate savings in operations expense
- ▶ ERP system can help produce goods and services more quickly
- ▶ Company that doesn't implement an ERP system might be forced out of business by competitors that have an ERP system
- ▶ Smoothly running ERP system can save a company's personnel, suppliers, distributors, and customers much frustration

What Return Can a Company Expect from Its ERP Investment?

- Cost savings and increased revenues occur over many years
 - Difficult to put an exact dollar figure to the amount accrued from the original ERP investment
- ERP implementations take time
 - Other business factors may be affecting the company's costs and profitability
 - Difficult to isolate the impact of the ERP system alone
- ERP systems provide real-time data
 - Improve external customer communications

How Long Does It Take to See a Return on an ERP Investment?

- ▶ **Return on investment (ROI):** assessment of an investment project's value
 - ▶ Calculated by dividing the value of the project's benefits by the project's cost
- ▶ ERP system's ROI can be difficult to calculate
- ▶ Peerstone Research study
 - ▶ 63 percent of companies that performed the calculation reported a positive ROI for ERP
 - ▶ Most companies felt that nonfinancial goals were the reason behind their ERP installations

Why Do Some Companies Have More Success with ERP Than Others?

- Usually, a bumpy rollout and low ROI are caused by *people* problems and misguided expectations, not computer malfunctions
 - Executives blindly hoping that new software will cure fundamental business problems that are not curable by any software
 - Executives and IT managers not taking enough time for a proper analysis during planning and implementation phase
 - Executives and IT managers skimping on employee education and training

Why Do Some Companies Have More Success with ERP Than Others?

- ▶ Usually, a bumpy rollout and low ROI are caused by *people* problems and misguided expectations, not computer malfunctions (cont'd.)
 - ▶ Companies not placing ownership or accountability for the implementation project on the personnel who will operate the system
 - ▶ Unless a large project such as an ERP installation is promoted from the top down, it is doomed to fail
 - ▶ ERP implementation brings a tremendous amount of change for users

Why Do Some Companies Have More Success with ERP Than Others? (cont'd.)

- ▶ For many users, it takes years before they can take advantage of many of an ERP system's capabilities
- ▶ Most ERP installations do generate returns



Conclusion

- Critical situation of ERP need
 - Value of ERP for the customer
 - Special position of accounting
 - Basic of ERP development (customer side)
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