

ERP Course: Managing an ERP Projects

Readings: Chapter 8 from Mary Sumner and paper on Agile ERP

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ERP Projects

They often represent the single largest investment

Complexity in functions

Complexity in projects

Complexity in technology

Need for management

Some Cases ☹️

FoxMeyer Corporation – SAP

- Helped drive it into bankruptcy

W.W Grainer Inc. – SAP

- Spent \$9 milion on SAP
- During worst months lost \$19mil - \$23 mil in profit

Hershey Foods Corp – SAP, impl. led by IBM

- 12% fell in sales in the first quater after system was alive

Statistics on ERP Vendors Implementation

SAP/R3 65.3%

J.D. Edwards 12.9%

Oracle 8.9%

Firms felt that they achieved 65% of the business case targets

70% of firms felt that implementation was successful

55.5% pointed that the actual costs exceeded budget by an average of 60.6% (actually the range was -10% to 200%)

Additional findings

Under- or on-budget projects made fewer modifications

Modifications contribute to a 50% increase in project duration

Under- or on-budget projects established greater authority of implementation

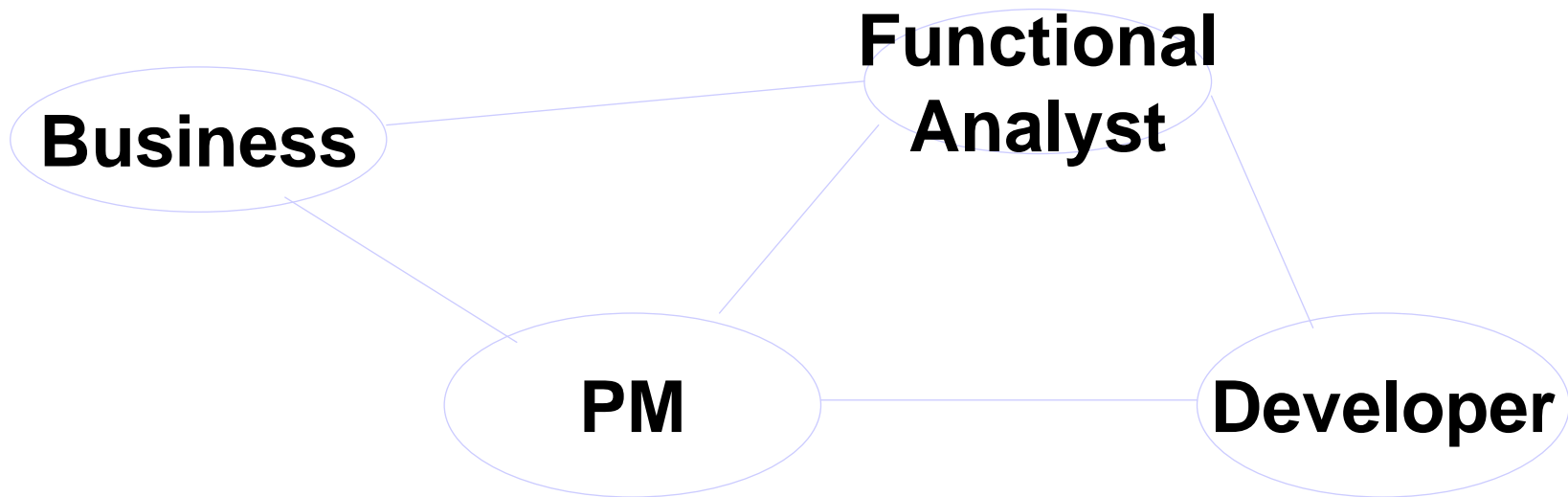
Under- or on-budget projects established more effective communications

Under- or on-budget firms manage their business better and managed their ERP implementation better

Some questions

- What technology challenges are encountered in implementing enterprise-wide information management system?
- What organizational challenges are addressed?
- What people challenges are encountered?
- What challenges are associated with size and project scope?
- What are the strategies for minimizing the risks associated with the technology, organization, people, size/scope?

Typical Roles in ERP Project



Development and Deployment

The product works this way vs. Whatever customer wants

User Exits

Configuration of units

Data Driven

Code is posted into a repository and immediately available to users

- Story and test driven development is a challenge
- Difficult to convince about cloning the servers (4 instances for update-write test-write code-check in)

QA processes in integrated system

- Multiple projects running on the same erp tests
- Access just to those parts which are under your functional area/module
- Estimated 3M delay between fully tested component and deployment to the production

Causes of Project Failures

Resource failures

- Conflicts of people, time and project scope due to insufficient personnel
- Incorrect systems with poor reliability, difficult to maintain, dissatisfied users

Requirement failures

- Poor specification of requirements
- Developing the wrong system with many changes

Goal failures

- Inadequate statement of goal from management
- Developing wrong system, leads to requirements failures

Causes of Project Failures

Technique failures

- Wrong software development approaches
- Inadequate req. spec., poor reliability, high maintenance costs, scheduling and budget problems

User contact failures

- Inability to communicate with the system users
- Inadequate req., poor preparation for accepting and using

Organizational failures

- Poor org. structure, lack of leadership, excessive span of control
- Poor coordination of tasks, schedule delays, inconsistent quality

Causes of Project Failures

People management failures

- Lack of effort, antagonistic behaviour, stifled creativity
- Time delays, budget overruns, poor specs., maintenance problems

Methodology failures

- Unnecessary activities performed while the necessary ones are omitted
- ...

Causes of Project Failures

Technology failures

- Hardware/Software does not meet spec., failure of the vendor to deliver on time, unreliable products
- Schedule delays, poor reliability, maintenance problems, dissatisfied users

Size failures

- Too large project, capabilities pushed beyond the level
- Insufficient resources, inadequate requirements, simplistic project control, poor use of methodology

Causes of Project Failures

Planning and control failures

- Vague assignments, inadequate tools for PM and tracking
- Work assignments overlap or missing, deliverables poorly defined, poor communication

Personality failures

- People clashes
- Passive cooperation and covert resistance, vengeance

Key Factors to Have in Mind

To deliver:

- On time
- Within budget
- Reliable System
- Maintainable System
- Meet goals
- Meet Requirements

To evaluate

Rules

Players

Goals

Constraints

Risks Categories

Technology risks

Organizational risks

Risks in people

Risks in project size

Technology risks

Technology fit

- system consistent with current technology infrastructure poses lower risk
- System which require major changes in technology infrastructure means higher risk

Fit with technological expertise

- Tech. Requirements are consistent with technical expertise – lower risk
- Not consistent with tech. Expertise – bigger risk

Organizational risks

Business process re-design

- Extensive re-design of business process – in the book it says lower risk, but it depends where you book the costs on the re-design ;)
- Major changes and customization – higher risk

Scope of business processes

- Scope of project affects 0-25% of business processes – lower risk
- Scope of project affects 50-100% of business processes – higher risk

Risk in people

Knowledge of IT staff

- Knowledgable in app. Specific modules – lower risk
- Limited knowledge – higher risk

Knowledge of User staff

- Fully involved in the project – lower risk
- Limited involvement in the project – higher risk

Risk Categories and Factors

Organizational fit

- Failure to redesign business processes
- Failure to follow an enterprise-wide design with data integration

Skill set

- Insufficient training and re-skilling
- Insufficient internal expertise
- Lack of business analyst with business and technology knowledge
- Failure to mix internal and external expertise
- Failure to retain or recruit qualified ERP systems developers

Risk Categories and Factors

Management Strategy

- Lack of senior management support
- Lack of proper management control structure
- Lack of champion
- Ineffective communication

Software design

- Failure to adhere to standard specifications which the software supports
- Lack of integration

Risk Categories and Factors

User involvement and training

- Insufficient training of end-users
- Ineffective communication
- Lack of full time commitment to project
- Failure to emphasize reporting

Technology planning/integration

- Inability to avoid technological bottleneck
- Attempting to build bridges to legacy applications

Risk Categories and Factors

Organizational fit

- Commitment to redesign business processes
- Top management commitment to restructure and follow an enterprise-wide design with data integration

Skill mix

- Effective recruiting and retaining specialized technical personnel
- Effective reskilling of existing IT workforce
- Obtaining business analyst with knowledge about application specific modules
- Effective use of external consultants on project teams

Risk Categories and Factors

Management Structure and Strategy

- Obtaining top management support
- Establishing a centralized project management structure
- Assigning a champion

Software design

- Commitment to using project management methodology and best practices specified by vendor
- Adherence with software specification

Risk Categories and Factors

User involvement and training

- Effective user training
- Full time commitment of users to project
- Effective communication

Technology planning/integration

- Acquiring technical expertise
- Acquiring vendor support for capacity planning and upgrading
- Proper planning for an architecture which was decided