Management of BPM Projects

Mathias Eggert
Project Management – Goals, Organization and Critical Success factors

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimization

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management

Succeeding at Reengineering - Most common mistakes

Lessons learned
Project Management – Procedural Model

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Project management as a basis for successful executions of projects

Main tasks of project management:
- Planning
- Organizing
- Monitoring
- Controlling

of project tasks, quality, personal resources and time.
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(Rosemann et al., 2005)
Goals are the basis for planning, controlling, and monitoring activities

Project goals

- output goal = project purpose (e.g.: product development) → basis for future commitment of modelling purposes
- formal goals
  - cost → cost of materials and personal
  - time → time scheduling
    - project ending
    - basic dates (milestones)
- Project steering committee
  - Decision maker and control entity within the project
- Project director
  - Coordination of activities of project teams
- Project team
  - Professional and method agents
- Example for a project organization

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Main tasks of project controlling
- monitoring and controlling function
- assurance of composed output and formal goals

Measures of project controlling
- coordination of project output with business management and strategic corporate goals
- alignment of as-is and to-be ratios
- application of project management software – methodical patency (e.g., process models for project planning)
- capacity adjustment
- prioritization of critical activities
- constant verification of economic efficiency
- ...
Project Management – Critical Success Factors

- create awareness for changes
- include employees into the process of idea-finding
- ensure top management commitment
- exact definition of project scope and aims
- precise definition of allowed times - deadlines
- assign capacities of employees (resource management)
- motivate members of project team
- need for realization competence
- ...
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Why preparation?

There are
- multitude of usage purposes
- multitude of different modelling techniques
- multitude of modellers and model users
- multitude of models

 Increased complexity
- of information models
- of model creation processes

 Quality management needed
- model designing recommendations
Preparation of Process Modelling - Selection of Model Types

- Requirements of model types/modelling method are determined by
  - the modelling purpose,
  - roles of modellers and model users,
  - personal preferences of modellers and model users

- Example: organization engineering vs. application system engineering
  - Example: EPC vs. Petri Nets vs. UML

- Transfer of models into a tool should be possible without much effort
  \(\rightarrow\) ARIS-Toolset in our course
Information models have to be allocated to a multiplicity of employees

Possibly spatial barriers

What might be helpful documentation types for doing so?
Information models have to be allocated to a multiplicity of employees
Possibly spatial barriers
What might be helpful documentation types for doing so?
- Plots
  - ensure quick overview
  - are connected with high costs
- Handbooks
  - are dedicated to wide spreading
  - special layout conventions for models are to be defined
- Intranet
  - high actuality by adjustment “at the push of a button“
  - special layout conventions for models are to be defined
Preparation of Process Modelling – Guidelines of Modelling (GoM)

- syntactic rules
- semantical
- correctness
- terminology

... Correctness

- system,
- process structures,
- process instances
- resources, media

... Relevance

- procedure model
- reference models
- structural model components

... Economic Efficiency

- structural model components
- ... Correctness
- Relevance
- Economic Efficiency

General

Model Quality

Methods

Views

- topology (e.g. minimize crossing lines)
- visualizing semantics
- naming/terminology

... Clarity

- conventions for modeling (e.g. activities as places or transitions)
- terminology

... Comparability

- view-integration level-integration (e.g. ARIS)
- ...

... Systematic Design

- Reorganization
- AB-Costing
- Automation/WFM
- IT-Inv.-Control,
- ... etc.

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Big number of networked processes

Superior model needed that establishes a total coherency and enables navigation throughout the processes

Definition:

„A system framework classifies relevant elements and relationships of an original on a high abstraction level in a chosen structure in any language. The purpose of an organizational framework is to arrange an overview of the original and to unfold the references of elements and relationships to other elements and relationships of inferior detail levels.“ [Meise (2001), p.62]
**Strategy and Organizational Framework**

**Examples for Organizational Frameworks**

- The Retail-H Model

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Why should we do as-is-analysis?
As-Is Modelling and As-Is Analysis

**Intention**

- Survey of the current state of the corporation (part) to be analyzed

**Purpose of as-is modelling**

- basis for the identification of weaknesses and room for improvement
- prerequisite for the development of migration strategies towards the to-be state
- creation of transparency throughout the corporation concerning the corporation itself → encouragement of comprehension of the technical coherencies and problems
- instruction courses necessary in the context of to-be modelling
- checklist for to-be modelling to prevent the missing of relevant issues
- reuse of model parts within the to-be concept
As-Is Modelling and As-Is Analysis

Procedure of As-Is Modelling (1/2)

- Preparation of as-is-modelling
- Identification und prioritization of problem areas to be surveyed
  - existing organizational framework as an orientation help
  - dividing problem areas into problem parts
  - prioritization criteria:
    - ...
Need to reorganize

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>process value</td>
</tr>
</tbody>
</table>

Hammer, Champy (1993)
Process Priorization

Degree of Freedom

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tr>
<td>II</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>III</td>
<td>low</td>
<td>small</td>
</tr>
<tr>
<td>IV</td>
<td>high</td>
<td>low</td>
</tr>
</tbody>
</table>

Davenport (1993)

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Select the Processes to Reorganize

- **Dysfunction:**
  - Which processes are in the deepest trouble?

- **Importance:**
  - Which processes have the greatest impact on the company's customer?
  - Which processes have the highest strategic relevance?

- **Feasibility:**
  - Which process is the most susceptible to successful redesign?
  - What are the culture and politics of each process?
Survey and documentation of as-is models
- Building of modelling complexes with prior defined part problem areas
- Involvement of methodical and technical experts by team director
- Consensus finding within workshops

Model consolidation
- Aggregation and reuse of similar models
Means & Sources to Identify Processes

- Internal:

- External:
Means & Sources to Identify Processes

- **Internal:**
  - written documentation
  - interviews
  - workshops
  - questionnaires
  - ...

- **External:**
  - professional journals
  - textbooks
  - prior studies
  - benchmarking
  - reference models
  - ...

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A basic requirement for to-be process modelling is generally a performance increase within the considered corporate sector:

- revenue increase
- cost reduction
- throughput time reduction
- general quality improvement
- ...

Starting Point for Engineering of to-be models:

- analysis and clearance of weaknesses shown within the as-is-modelling
- Development of improved business process models in comparison to the as-is concept
To-Be Modelling and Process Optimization

Typical Analysis Approaches

- Which aim does the process have?
- Why is the process executed as it is?
- Which organizational units and application systems are involved - and where are (organizational and media) breaks?
- What are the current problems?
- Which changes will/can be implemented soon (internal/environment)?
- What technology is (will be) available?
- What are current benchmarks?
- …
Preparation of to-be modelling

- definition of extent of to-be modelling according to modelling goal (cp. as-is-models)
- definition of views to be modelled according to purpose
- example:

<table>
<thead>
<tr>
<th>view</th>
<th>functional view</th>
<th>organisational view</th>
<th>data view</th>
<th>process view</th>
</tr>
</thead>
<tbody>
<tr>
<td>purpose</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>process-oriented reorganisation</td>
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<td></td>
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<td></td>
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<tr>
<td>certification with ISO 9000ff.</td>
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</tr>
<tr>
<td>software engineering</td>
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</tr>
</tbody>
</table>

Manipulation degree:
- high
- medium
- low

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Process Improvement - Function-oriented Approaches (1/2)

- **Elimination of functions**
  - Lean Management-Approach: elimination of activities not serving at least one corporate goal (monetary or not monetary); consideration of legal prescriptions
  - Outsourcing

- **Integration of functions (unification)**
  - Job Enlargement (horizontal compression)
    - one person performs the whole process (case worker)
    - process ownership as an additional or alternative dimension to the formal organizational structure
  - Job Enrichment (vertical compression, empowerment)
    - TQM-idea (‘quality by production, not by testing’)
    - delegation of decisions
Process Improvement - Function-oriented Approaches (2/2)

- Automation of functions
  - Basic idea of IT-use
  - Especially: Automation of control flow (workflow management)

- Routing of functions
  - Parallelization: delinearize processes (e.g. simultaneous/concurrent engineering)
  - Switch of functions
General Principle: extend the control sphere of a (human, technical) resource to its limits (Centralization)

- organizational:
  - case worker/process owner
  - reduced interfaces
  - delegation of responsibility

- IT:
  - integration of different media
  - reduced media changes
  - full use of software functionality
**Process Improvement - Object-oriented Approaches**

- **Elimination of objects**
  - secondary objects (copies, reports)
  - e.g. prebilling

- **Substitution of objects**

- **Digitalization of objects**
  - e.g. document management systems

- **Harmonization of objects**
  - Logistical units (e.g. pallets)
  - IT from the same vendor (e.g. only Microsoft products)

- **Separation of objects**

- **Process-oriented optimization of objects**
To-Be Modelling and Process Optimization

Common Constraints

- **Organizational Constraints**
  - Qualification
  - Capacity
  - Law (i.e., in governments)
  - ...

- **IT Constraints**
  - Legacy Software
  - Interfaces
  - Functionality of (existing) Software
  - ...

- **Cultural Constraints**
  - Persistence
  - ...

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**Aim:** Optimal execution of processes by process-oriented organizational structure

**Means (strategically):** “Fit” between organizational structure and process structure

**Means (practically):** Design criterion: minimization of organizational structure interfaces (if possible)

**But:** Classical organization theory: organizational structure determines process structure

**Here:** Process-oriented organization design: process structure determines organizational structure

→ Starting point for organizational engineering: to-be processes enriched by specific organizational data
1. Enhance organizational framework and to-be processes by variants
2. Derive organizational devices from processes (and variants)
3. Model roles, define resource demand
4. Create jobs and allocate to organizational devices
5. Consider the activities that were not modelled
6. Increase resource efficiency
7. Constitute management system
8. Describe and optimize organizational structure interfaces
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Lessons learned
The implementation of new structures is – besides their design – an essential part of process management.

Implementation strategies
- Pilot Roll-out
- Step-by-Step
- Big-Bang
- Create acceptance/Communication concept
  - create problem **awareness**
  - continuous **communication** of goals
  - **top management** support
  - create **incentives**
  - stimulate **exchange** of experience
  - ...

- Create Capability/Training concept
  - differentiated **training concepts** for top management, middle management, operative level, process managers
  - ...

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Towards a continuous process management (CPM) after process-oriented reorganization

- consistent, incremental improving of process structure

Tasks of CPM

- implementation of process-oriented control instruments (e.g. workflow management)
- continuous interface management, especially in bigger, complex design problems
- react to changed environmental requirements
- continuous monitoring of goal achievement ratios → starting basis for new improvements
- continuous communication and advancement of process concept
- ...
Continuous Process Management
Procedural Model for CPM

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Succeeding at Reengineering - Most common mistakes

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Succeeding at Reengineering - Most common mistakes

→ 50-70 % do not achieve the results they intended

■ try to fix a process instead of changing it
■ ignore everything except process redesign
■ neglect people`s values and beliefs
■ try to make reengineering happen from the bottom up and without top management commitment
■ Assign someone who doesn't understand reengineering to lead the effort
■ bury reengineering in the middle of the corporate agenda

Hammer, Champy (1993)
Lessons learned

- Business Process Management drivers/ Why BPM?
- How to process/organize a BPM project? (Procedural Model)
- What are information models/process models? What are common objectives of conceptual modelling?
- What are critical issues/typical traps in a BPM project?
- How to optimize processes? What are optimal processes?
- When is BPM finished?
- …
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