BPR LIFECYCLE

Business Process Reengineering

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Roots of BPR in history

- **Adam Smith (1776, The Wealth of Nations)**
  - Use separating work areas to increase productivity

- **American Railway (1820)**
  - Create modern business bureaucracy (control-command procedures)

- **Frederick Taylor (1880)**
  - Observation and analysis through time study to set the optimal production rate. In other words, develop a science for each man’s task a One Best Way.
  - Scientifically select the best man for the job and train him in the procedures he is expected to follow.
  - Cooperate with the man to ensure that the work is done as described. This means establishing a differential rate system of piece work and paying the man on an incentive basis, not according to the position.
  - Divide the work between managers and workers so that managers are given the responsibility for planning and preparation of work, rather than the individual worker.
    - Tawney (1954): The strict belief in man being totally rational, and the history of Protestant ethic, which considered work as being a manifestation of religious grace, made him disregard the crucial issue of human behaviour and the fact that money is insufficient as the single source of motivation.
    - Thompson (1969): Scientific management, focusing primarily on manufacturing or similar production activities, clearly employs economic efficiency as its ultimate criterion and achieves conceptual closure of the organization by assuming that goals are known, tasks are repetitive, output of the production process somehow disappears, and resources in uniform qualities are available.
    - Drucker (1972): Scientific management was not concerned with technology. It took tools and technology as givens.
A historic perspective

1990
Michael Hammer,
Article in Harvard Business Review

1990
Thomas H.
Davenport, J. Short
Article in Sloan Management Review

1993
65% of the Fortune 500 companies claimed to either have initiated reengineering efforts, or to have plans to do so

1995
Critiques on BPR 1st Wave

2000+
Agile Business Processes: BPR takes new impetus
BPR Evolution

Selecting the right timing for BPR

When in power position:
• To strengthen its competitive advantage
• To widen the gap from its competitors

When facing problems:
• To map a strategy and future action plan
• To consolidate its position
• To avoid deterioration of problems

In the brick of bankruptcy:
• To survive
• To revolutionize its strategy and mode of operation
Preparation for BPR

- Identify and quantify process improvement opportunities
- Establish objectives "stretching" the existing activities
- Identify benefits for the organization
- Identify the necessary changes
Reengineering Process

1. Preparation – What the customer actually wants from the business

2. Strategy Development – Develop Strategic Processes, Analysis & Prioritization

3. Organizational System Design - Create a Core team of People

4. Implementation – Realization of technical and social objectives
BPR Principles

- Organize around outcomes, not tasks.
- Have those who use the output of the process perform the process.
- Subsume information-processing work into the real work that produces the information.
- Treat geographically dispersed resources as though they were centralized.
- Link parallel activities instead of integrating their results.
- Put decision points where the work is performed and build controls into the process.
- Capture information at the source.

A BPR Framework

Organization

Job skills
Structures
Reward
Values

Process

Core business processes
Value-added
Customer-focus
Innovation

Technology

Enabling technologies
IS architectures
Methods and tools
IS organizations

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BPR Levels

1. Localised Exploitation
2. Internal Integration
3. Business Process Redesign
4. Business Network Redesign
5. Business Scope Redefinition

Degree of Business Transformation

Evolutionary Levels

Revolutionary Levels

Range of potential

High

Low
Contemporary BPR Methodologies

- Process Reengineering Life Cycle (PRLC) Methodology
- Integrated BPR Methodology by Muthu, Whitman and Cheraghi
- Object-Oriented Business Engineering Methodology (OO-BEM) by Jacobson et al
- Accenture BPR Methodology
- McKinsey BPR Methodology

Comprise the Western approach to go beyond the Japanese Management KAIZEN (TQM)
«Process Reengineering Life Cycle» Methodology

Kai A. Simon, Towards a theoretical framework for Business Process Reengineering, June 2004

Decision Support Systems Laboratory, NTUA
Business Process Reengineering 2013 - BPR Lifecycle
Integrated BPR Methodology by Muthu, Whitman and Cheraghi

Prepare for BPR
- Build cross functional team
- Identify customer driven objective
- Develop strategic purpose

Map & Analyze As-Is Process
- Create activity models
- Create process models
- Simulate and perform ABC
- Identify disconnects and value adding processes

Design To-Be Processes
- Benchmark processes
- Design To-Be processes
- Validate To-Be processes
- Perform trade-off analysis

Implement Reengineered Process
- Evolve implementation plan
- Prototype and simulate transition plans
- Initiate training programs
- Implement transition plan

Improve continuously
- Initiate ongoing measurement
- Review performance against target
- Improve process continuously

Object-Oriented Business Engineering Methodology (OO-BEM) by Jacobson et al

- Envisioning
  - Reversing the existing business (Reverse Engineering)
  - Engineering the new business (Forward Engineering)
- Installing the new business
Accenture BPR Methodology

Shared vision
- Define stakeholder value
- Define core competencies
- Develop shared vision
- Determine strategies and priorities
- Develop operational vision

Assess and align
- Create next level process models
- Benchmark current operations against vision
- Analyze gaps
- Assess barriers to change
- Identify quick hit initiatives
- Define major program initiatives
- Project benefits and costs

Master plan
- Profile current operations
- Create top-down solutions
- Build bottom-up solutions
- Synthesize solutions
- Create master plan

Design, pilot & implement
- Design
- Pilot implementation
- Roll-out

Operate
- Balance sheet
- Scorecard

McKinsey BPR Methodology

Step 1: Diagnostic
- Definition of core process scope
- Quantification of performance gaps
- Diagnosis of existing processes

Step 2: Re-design
- Definition of redesign vision
- Redesign of processes in detail
- Pilot test of new processes

Step 3: Implementation
- Define implementation plan
- Roll out initiatives throughout the organization

Business Process Reengineering Life Cycle

Visioning
- Define corporate visions and business goals

Identifying
- Identify business processes to be reengineered
- Analyze and measure an existing process

Analyzing
- Identify enabling IT & generate alternative process redesigns
- Evaluate and select a process redesign

Redesigning
- Implement the reengineered process

Evaluating
- Continuous improvement of the process

Implementing

Improving
- Manage change and stakeholder interests

Enterprise-wide engineering
- BPR-LC
  - Enterprise-wide engineering
  - Process-specific engineering
Baseline Rules

- **Benchmarking**: To provide opportunities to examine practices in other organizations with similar conditions.
- **Collaborating**: to involve stakeholders so that they may see the real impact BPR can have on their work.
- **Communicating**: to keep stakeholders informed throughout the various stages of BPR and provide them the opportunity to raise and address concerns.
- **Meeting**: to maintain support from and gain stakeholders sign-offs at each stage of the BPR.
Key Steps in BPR Pilots

1. Select The Process & Appoint a BPR Team
2. Study the Current Process
3. Keep Organisation Aware
4. Design the BPR Action Plan
5. Rebuild the Process
6. Execute and Follow the Plan
Step #1
Criteria for Selecting Processes

- Broken Process
- Bottleneck and Delays
- Cross-functional or cross-organizational units
- Core processes that have high impacts
- Front-line and customer serving (moment of truth)
- Value-adding
- New processes and services opportunity
- Feasibility
Step #1
Process Data

- Basic Overall process data
- Customers and customer requirements
  - Suppliers and suppliers qualifications
  - Breakthrough goals
- Performance characteristics
  - Cost
  - cycle time
  - Reliability
  - defect rate
- Systems constraints
  - Budgetary
  - Business
  - Legal
  - social
  - environmental
  - safety issues
- Measure critical process metrics
  - Cycle time
  - Cost
  - Input quality
  - Output quality
  - Frequency and distribution of inputs
Step #1
Select the Process

- Review business strategy and customer requirements
- Select core processes
- Understand customer needs
- No assumption
- Select correct path for change
- Ask - questionnaires, meetings, focus groups
Step #1
Appoint a BPR Team

- Identify process owners
- Develop executive improvement team
- Provide training to executive team
Step #1
BPR Team’s Core Skills

- Capacity to view the organization as a whole
- Ability to focus on end-customers
- Ability to challenge fundamental assumptions
- Courage to deliver into unknown areas
- Ability to assume individual and collective responsibility
Step #2
Study Current Process

• Draft the Process Overview
• Define and develop the process in detail
  • Mission
  • Scope
  • Boundaries
  • Roles
  • Interactions – Interfaces
• Set performance metrics
• Understand customers expectations
Step #2
Study Current Process

• Document the Process
  • Cost
  • Time
  • Value Data
  • Workflow
• Identify Improvement Opportunities
  • Quality
  • Time
  • Cost
• Rework
Step #3
Keep Organisation Aware

• Spread the knowledge in the organisation
• Cultivate the vision for the future
• Keep people informed on developments
• Persuade people that BPR is necessary
• Reassure people by closely managing BPR
• Indicate necessary actions
• Assign responsibilities to key personnel
Step #4
Design the BPR Action Plan

- Develop an improvement plan
- Appoint process owners
- Simplify the process to reduce process time
- Remove no-value-added activities
- Standardize process and automate where possible
- Up-grade equipment
- Plan/schedule the changes
Step #4
Design the BPR Action Plan

Exploit BPR-related Tools developed from

- Modelling
- Benchmarking
- Risk analysis & SWOT
- Simulation
- Impact Assessment
- Lean development
- Theory of constraints
- ...

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Business Process Reengineering 2013 - BPR Lifecycle
Step #5
Rebuild the Process

More on this you’ll learn in this course!
Step #6
Execute and Follow the Plan

• Qualify/certify the process

• Test periodically the process

• Identify and eliminate emerging process problems

• Evaluate the impact on the business on customers

• Run periodically benchmarking tests for the process

• Train the employees for maximazing process efficiency
“What good is technology if it takes six seconds to send a message but six months to get someone to act on it?!”
RFID in Retail

Is it BPR?

http://www.youtube.com/watch?v=4eOr0PfwFgs&list=FLH-uoNhwpO93bHwkdDgMqVw&index=9
QUESTIONS?

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