The Evolution of Business Process Management

Paul Harmon
Executive Editor
Business Process Trends

Process Integration in Nineties

Horizontally Integrated Business Process
That Delivers a Specific Product to a Targeted Group of Customers
Today: Horizontal & Vertical Alignment

- Vertically Integrated Measures, Managers, and Resources
- Employees & IT Applications and Infrastructure
- Horizontally Integrated Processes From Suppliers to Customers
- Executive Management
- Strategy Committee
- Sales Department

Why the Interest in Business Process?

- Make the company more efficient and productive by improving existing processes
- Allow the company to shift goals or get into new businesses by providing the company with the ability to quickly and efficiently create new business processes
- Keep focused on customers
- Automate where reasonable
Business Process Change Initiatives

We Have Lots of Technologies to Use
The BPTrends Pyramid

Strategy Level

Business Process Level

Implementation Level

The BPTrends Pyramid

Plans & Goals

Value Chain

Specific Process

Process Performed by Employees

Process Automated by IT Systems

Physical Plant and Hardware Used.


Some of the Most Important Trends

• 1. BP Management System
• 2. BP Architecture
• 3. BP Process Analysis & Redesign Approach
• 4. Business Rules Management System
• 5. BP Automation (BPMS)
• 6. IT Components Aligned with BP
• 7. BP-based Enterprise Monitoring System
• 8. HR Support Aligned with BP
• 9. Significant BP Outsourcing

An Aside on the Meaning of Process

1. BP Management System

- Senior Management’s Vision: The Process-Centric Company
- Senior Management’s Goal: Coordinate and Prioritize all the diverse process initiatives
- Train Managers to Manage Processes
- Align Manager’s Incentives with Processes
- A BP Redesign Group
- Teams Trained to Undertake Constant Process Improvement (6 Sigma)
2. BP Architecture

- The key tool for process management
- A high-level overview of the value chains and key processes that make up the organization
- An alignment of strategic goals, value chains and key processes
- A clear-cut way to monitor the performance of the value chains and processes (KPIs)

- A BP Architecture is NOT an IT EA Architecture
Too Many Independent Hierarchies

We Need to Integrate Our Hierarchies
BP Operation Reference Frameworks

- A OR Framework is a template for a BP Architecture
- The Supply Chain Council’s SCOR Framework
- The TeleManagement Forum’s eTOM/NGOSS Framework
- Hewlett Packard’s Framework Suite
- The VCOR Initiative

SCOR MODEL: Level 1

- Plan
- Source
- Make
- Deliver
- Return
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The Level 1 SCOR Notation

SCOR’s Level 1 Scorecard

<table>
<thead>
<tr>
<th>Performance Attribute</th>
<th>Performance Attribute Definition</th>
<th>Level 1 Metric</th>
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<tbody>
<tr>
<td>Supply Chain Delivery</td>
<td>Reliability</td>
<td>Delivery Performance</td>
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<td></td>
<td>Reliability</td>
<td>Fill Rates</td>
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<td>Reliability</td>
<td>Perfect Order Fulfillment</td>
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<td>Reliability</td>
<td>Order Fulfillment Lead Times</td>
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<td></td>
<td>Responsiveness</td>
<td>Supply Chain Response Time</td>
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<td>Flexibility</td>
<td>Production Flexibility</td>
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<td>Cost of Goods Sold</td>
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<td></td>
<td>Total Supply Chain Management Costs</td>
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<td>Value-Added Productivity</td>
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<td>Warranty/Returns Processing Costs</td>
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<td></td>
<td>Costs</td>
<td>Cash-to-Cash Cycle Time</td>
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<td></td>
<td></td>
<td>Inventory Days of Supply</td>
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<td>Asset Turns</td>
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www.bptrends.com
SCOR Benchmarks Provide Instant ROI

<table>
<thead>
<tr>
<th>Supply Chain SCORcard</th>
<th>Industry Benchmarks</th>
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<tr>
<td>Overview Metrics</td>
<td>SCOR Level 1 Metrics</td>
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<tr>
<td></td>
<td>Delivery Performance to Commit Date</td>
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<tr>
<td></td>
<td>Fill Rates</td>
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<td>Production Flexibility</td>
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<td>Cost</td>
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<td>Total SCM Management Cost</td>
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<td>Warranty Cost</td>
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<td>Value Added Employee Productivity</td>
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<td>Assets</td>
<td>Inventory Days of Supply</td>
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<td>Cash-to-Cash Cycle Time</td>
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<td>Net Asset Turns (Working Capital)</td>
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3. BP Process Analysis & Redesign

- New processes need to be designed
- Inefficient or ineffective processes need to be redesigned
- Processes that work need to be improved
- The entire effort needs to be coordinated with methodologies, software tools, and a repository
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The Types of BP Methodologies

<table>
<thead>
<tr>
<th>Strategy and Goals</th>
<th>Organization Performance</th>
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</thead>
<tbody>
<tr>
<td>Management and Measurement issues involved in establishing strategy and goals.</td>
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<td>Business Process Level</td>
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<td>BP Architecture</td>
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<td>BP Analysis &amp; Redesign</td>
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<td>Implementation Level</td>
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<tr>
<td>IT Focused BP Change Methodologies</td>
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Physical Plant and Hardware Used.

BP Methodologies

- **Broad BP Change Methodologies**
  - Process Renewal Methodology (PRG)
  - Rummler Methodology (PDL)
  - xBML Methodology (Business Genetics)

- **More Focused Process Change Methodologies**
  - Balanced Scorecard
  - Six Sigma DMAIC
  - Proteus Business Rules Methodology (BR Solutions)
  - ARIS Methodology (IDS Scheer)

- **IT Automation Methodologies**
  - UREP Methodology (Rational/IBM)
  - IDEF Methodology
  - Martin Ould’s RIVA Methodology
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Six Sigma and BPM

1. Define
   - Plan Project
     - 1. Define project
     - 2. Identify customer requirements
     - 3. Document process
     - 4. Set goal

2. Measure
   - Identify Measures
     - 1. Identify Measures
     - 2. Define measures
     - 3. Develop & test data collection methods
     - 4. Define baseline measures

3. Analyze
   - Analyze Data
     - 1. Analyze data
     - 2. Explore possible causes and test hypotheses
     - 3. Identify causes

4. Improve
   - Implement Measurement
     - 1. Select a solution
     - 2. Pilot test solution
     - 3. Implement full scale solution

5. Control
   - Document and Maintain
     - 1. Document and keep score of results

An Aside: BPM Software Product Space

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<th>BP Modeling Tools</th>
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<td>BPM Languages</td>
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<td>Workflow Tools</td>
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<tr>
<td>ID Tools</td>
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<tr>
<td>BPM Monitoring</td>
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<tr>
<td>BI and Data Warehouse Products</td>
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<tr>
<td>Business Process Engineering Tools</td>
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<tr>
<td>Business Rule Management Tools</td>
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<tr>
<td>Universal BP Repository</td>
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Business Process Modeling Tools

- Include architecture, process modeling and simulation capabilities
- Are holding their own against BPM Suites that also include modeling capabilities
- Are popular with managers and redesign teams
Some BP Architecture, Modeling & Simulation Tools

- CACI’s SIMPROCESS
- Holocentric’s Holocentric
- IDS Scheer’s ARIS
- iGrafx’s iGrafx Process
- MEGA International’s MEGA
- Mi Services’ Mi SCOR
- Popkin Software’s System Architect
- Proforma’s ProVision
- ProModel’s Process Simulator
- xBPM Innovations’ xBPL 2005 Modeling Suite

4. Business Rule Management Tools
Business Rules Management

- Goal: Abstracting business rules from policy manuals, software, and from training programs and saving them in a repository so they can be systematically managed
- The effort needs to be aligned with business process efforts
- OMG Business Rule Standards
- Business Rules Community
  - www.brcommunity.com
- Business Rule Management Vendors

5. BP Automation: BPM Systems

- The idea of using software to manage processes in something close to real time
- New and confusing
- Most companies are just exploring the idea and it will evolve rapidly over the course of the next 2-3 years
- There are no clear winners yet: Most companies are yet sure how they'll use this technology
What Is a BPM Suite?

A Software Tool That Displays a Graphical View of a Process
B Logical Description of the Process
C Physical Implementation of the Process
D BPMS Engine
E Software Tool (Engine) That Manages Links Between Diagram and Implementation

The Key is Controlling the Business Process

A User Interface
B Software Component C
C Enterprise Application Module D
D Software Component B
E Enterprise Application Module E

BPMS Engine

Business Analyst Interface

**BPM Suites**

- **BP Modeling Tools**
  - BP Languages
  - BPM Languages
  - Universal BP Repository
- **BPM Applications**
  - BPM Suite + Frameworks
  - BPM Suite + Templates
- **BPM Monitoring Tools**
  - BPM Modeling Vendors
  - Business Rule Management Vendors
  - BAM Monitoring Vendors
- **BI and Data Warehouse Products**
  - EAI Tools
  - Process Simulation Tools
- **BP Languages**
  - EAI Tools and BPM Languages
  - BPM Suite and BPM Languages
- **EAI Tools**
  - BP Modeling Tools
  - BPM Languages
- **Business Rule Management Tools**
  - BPM Suite + Frameworks
  - BP Modeling Tools
- **BP Repository**
  - Universal BP Repository
  - BP Repository

**A BPM Continuum**

- **Languages**
  - Vendors who sell languages, like BPEL or Java
- **BPM Servers**
  - Vendors who sell BPM server platforms
- **Tools/Utilities**
  - Vendors who sell stand-alone tools or utilities
- **BPM Suites**
  - Vendors who sell BPM Suites
- **BPM Suites + Frameworks**
  - Vendors who sell BPM Suites with frameworks or templates
- **Complete BPM Applications**
  - Vendors who sell complete BPM systems or applications

**Languages provide the maximum flexibility and require the most work to get to a complete BPM system. These products are invariably used by IT developers.**

**Applications provide the minimum flexibility and require the least work to get to a complete BPM system. These products can be used by business users.**
A Layer Diagram of the BPM Space

BPM System or Applications
An application that implements a process that can be examined and changed dynamically.

BP Knowledge Frameworks
User Interfaces to Support Specific Processes
Rules for Specific Processes
Models for Specific Processes
Process Measures for Specific Processes
Software Components or Modules

BPM Suite
BPMS Application

BPM Tools/Utilities
User Interface Tools
Process Modeling Tool
Process Monitoring Tools (BAM)
Software Requirements Tool

BPM Server (Engines)
Business Rule Engine
BPM Engine (Software)
BPM Engine (Employees)

Language/Platform
J2EE
BPEL
XML
Eclipse

Some BPM Suite Vendors

- Appian’s Appian Process Engine
- Ascentn’s AgilePoint BPMS
- B2B Internet’s XicoBPM
- Chordiant’s Straight Through Service Processing
- CommerceQuest’s TRAXION Enterprise BPM Suite
- Eg Solutions’ eg Work Manager
- Filenet’s Filenet Business Process Manager
- PegaSystems’ PegaRULES Process Commander
- TIBCO’s TIBCO Staffware Process Suite
- Ultimus’ Ultimus BPM Suite
- IBM’s WebSphere Business Integration suite
BPEL and BPMN

- Being embraced rather than understood
- BPEL is currently only a variation on EAI
- Maybe a BPEL+ can support both employee and IT activities, but that is in the future
- BPMN is a nice notation that hasn’t got much traction yet; ultimately it’s an extension of UML’s Activity Diagrams

Petri Nets and Pi Calculus

- There are groups meeting to sort out the underlying basis for process automation
- There will be meetings on this in 2005
- They will probably get passed up by the vendors and user companies who will select more pragmatic solutions
6. IT Components Aligned with BP

- Ultimately BPM relies on software components
- They will need to be developed or changed as processes change
- Thus, BPM needs a clean link to Software Development technologies
- UML, MDA, and components

The OMG’s Model Driven Architecture

CIM >> PIM Mapping
PIM >> PSM Mapping
PSM >> Code Mapping
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The OMG’s BP Metamodels

MOF
Meta Object Facility

XMI

UML 2.0

BPMN

Various BP Tools

Ontology
Metamodel

Business Process Definition Metamodel

Business Rules
Metamodel

J2EE

BPEL

Various BP Tools

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MOF
Meta Object Facility

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BPEL

Various BP Tools

A BP Repository and MDA

Universal BP Repository

Organizational Modeling Tools

BP Modeling Tools

Process Simulation Tools

BPEL Management Tools

BI and Data Warehouse Products

Software Development Suites

Application Servers

Workflow Tools

Graphic Tools

Statistical Tools

• Adaptive
• IBM
• BEA
• Oracle

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7. BP-Based Enterprise Monitoring Systems

Everyone seems to think it’s part of BPM Systems

It’s important to discriminate between monitoring a specific process and providing information for senior managers

Business Performance Management, BAM, BI and Data Warehouses

– The BPM Forum
– IBM/OASIS Events Standard
Process Monitoring vs. Value Chain Monitoring

BPM Applications
### Packaged Applications vs. BPM Apps

- Traditional Packaged Applications are difficult to understand or to change
- BPM applications will incorporate Process Models and BPM Engine based to make them easier to manage and change
- Packaged application vendors will attempt to transition to BPM (SAP’s NetWeaver)
- BPM Suite vendors will evolve into BPM application vendors
- This is a very important part of BPM that has hardly begun

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### 8. HR Support Aligned with BP

- BPM Suites will place more importance on analyzing employee activities and aligning them with business processes
- Aligning Knowledge Management with processes
- Aligning employee incentives and feedback with processes
- Aligning training with processes
- www.ispi.org
The ISPI Human Performance Model


- We are going to create more decentralized organizations, using outsourcing
- The key is managing BPO is to have a good BP architecture and to manage with process-oriented techniques
- BPO vendors will become major advocates and consumers of BPM
Some of the Most Important Trends

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SUMMARY

• The challenge is the management of business process change
• We have too many technologies and not enough focus on why we should do BPM in the first place
• We manage processes to improve corporate performance
• Companies need to set goals, develop a strategy, and then create a BP organization that can organize and coordinate their BPM resources
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For More Information

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The most comprehensive source of information and analysis on trends, directions and best practices in Business Process Management

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