Linking BPM and the Supply Chain

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Scope and Purpose of the presentation

- Business Processes and their supporting architecture forms the foundation of the Business Process Management implementation
- A high number of business process change projects fail in organisations
- All organisations have, or are part of a supply chain
- Effective and efficient operation of a supply chain is critical to the meeting an organisation’s strategic objectives
- The purpose of this presentation is present the philosophy, principles and approach to define the appropriate baseline for Business Process Management in a Supply Chain
This presentation aims to address:

- Understanding of the organisation business process
- The approach to convert existing business processes and process objects into electronic processes and process objects for BPM implementation
- The key drivers that result in failing business process projects
- Raising process maturity in the organisation in order to ensure the success of BPM implementation in the supply chain of the organisation
Content

- Part 0: Introduction
- Part I: Key Business Process Principles To Keep In Mind For A Successful Implementation
- Part II: What Do You Need To Know About BPM To Enable The Supply Chain
- Part III: Case Study: Paving The Way For A BPM Implementation
- Part IV: Conclusion
PART 0: INTRODUCTION

- Core Definitions for BPM and Supply Chain Management
- Overview of Business Process Management understanding
- Scope and status of Supply Chain Management
Core Definitions

- BPM is the discipline of modeling, automating, managing and optimising business processes to increase profitability.
- Supply chain is the process that moves raw material to the final product in the hand of the end-customer.
Major components of BPM Solutions

- Business Process Modeling and Analysis – focuses on gaining a detailed understanding of business processes and the potential impact of changes to those processes
- Workflow automation – focuses on automating human-centric processes
- Enterprise Application Integration – focuses on the exchange of information between heterogeneous systems
- Business Activity Monitoring – focus on analyzing the efficiency and effectiveness of business processes and activities
Six Major Characteristics of BPM Initiatives (Ultimus)

- Convert paper-based business processes into electronic processes that eliminates paper forms, file folders, documents, and the inefficiencies associated with them.
- Completely automate steps by integrating with enterprise applications.
- Add intelligence to forms to reduce errors of omission (required data not filled out) or inaccurate data (e.g. pull part numbers from a database, rather than having a user enter it)
- Incorporate control features that ensure integrity of processes and compensate for human or system failure.
- Provide real-time feedback about the status of processes.
- Measure the time and cost of processes so that they can be optimised
CONTEXT FOR SUPPLY CHAIN

- The role of supply chain management
- Current landscape on supply chain management in South Africa
- Factors to Consider in the Supply Chain
Introduction (*)

- Flexible and responsive supply chain strategies are a critical prerequisite for enabling South African companies to enhance their international competitiveness.

- There is a growing perception that product based advantages are becoming less sustainable and more short term due to global information systems and that the competitive advantages of cost and service improvements are shifting to the supply chain.
Supply Chain Landscape (*)

- The 2005 study confirms last year’s prediction that the short term objective of cost reduction and increases in supply chain efficiency was unlikely to be met without an integrated approach to supply chain management processes.
- This means that more integration between customers and suppliers information in a demand network needs to exist that will increase responsiveness to fluctuating demand.
- Critical that a greater alignment between the company strategy and the operational methods used to achieve strategic goals.
Supply Chain Landscape (*)

- "There was a hesitancy to tackle issues which requires a degree of integrated planning and execution across functions, such as planning, forecasting and other forms of collaboration"
- "There is a realisation that the integration of internal processes will enable the advantage through an improved and faster flow of market information, itself acquired through collaboration"
- "An increase in the importance of the management of information, for example, points to a more integrated understanding of how strategy and operations can connect to improve the whole supply chain"
- "If the overall costs of the supply chain are underestimated, then the potential cost savings and the perceived improvements in service levels to be gained from any improvements in cost reduction will also be perceived to be small, with opportunities for improvement being overlooked"

* Supply Chain Foresight Study 2005 TerraNova
On behalf of Barloworld Logistics
Factors to consider in collaborative partnerships (*)

Integration and Flexibility are the key focus areas of a supply chain.

- Relational Integration
- Relational Integration
- Technology & Planning
- Internal Integration
- Measurement
- Material/Service Supplier Int.
- Customer Integration

* Spalding, R and Van Rensburg, A (2005) MBA Research Project, WBS.
Factors: Relational Integration

- Relationship prior to collaborative partnering process
- Resource availability
- Definition of exit procedures
- Information sharing between organisations
- Clear commitment, business vision
- Right governance structures in place
- Active senior sponsorship
- Cultural alignment of organisations
- Establishing trust through relational integration
- Close involvement of senior operations management
Factors: Technology and Planning

- Flexibility of both companies information systems (IS)
- IS connectivity capability
- Co-ordinated planning
- Management and implementation capability of IS teams across organisations
- The level of collaboration prior and post partnering
Factors

**Measurement**
- Process performance measurement
- Seller-buyer focus on common performance metrics across organisations
- Clearly articulated objectives

**Customer Integration**
- Level of sales channel segmentation
- Management velocity
- Sufficient capability in processes to provide support for channel co-ordination
- Relevancy
Factors

- **Internal Integration**
  - Strong internal process management
  - Standardisation
  - Structural flexibility
  - Simplification

- **Material/Service Provider Integration**
  - Operational alignment, structures and frameworks
  - Ownership of infrastructure
  - Clear commitment, business vision
Part I: Principles for processes

- Introduction to Business Process Management – non IT, but business
- Core Understanding of process, change and projects
- Project Organisation for process change
An appropriate approach...

Value system:
The very nature of changing an organisation's unique business processes prohibits a cook book approach.

Our aim:
*Use a framework based on principles to add value to business process management.*
WHY CHANGE?

PRODUCTIVITY ENHANCEMENT
Reduce the cost and improve the output of resources and processes

MARKET EXPANSION
To profitably grow the size of the market and expand share of it

NEW MARKET
Profitably create new markets, and build new businesses
Business Philosophies

- Total Quality Management
- Just-in-time
- Concurrent Engineering
- Time Compression Management
- Business Process Re-engineering
- Knowledge Management
- Business Engineering
- Six Sigma
- BPM
- Collaboration
- Supply Chain Management
Example (before)

Portfolio

<table>
<thead>
<tr>
<th>PRODUCT LINE</th>
<th>NM</th>
<th>BM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading</td>
<td>15 %</td>
<td>50 %</td>
</tr>
<tr>
<td>Consulting Services</td>
<td>35 %</td>
<td>40 %</td>
</tr>
<tr>
<td>Retail Investments</td>
<td>12 %</td>
<td>13 %</td>
</tr>
</tbody>
</table>

Project Portfolio

| PROJECT | Project X |

Business Case

<table>
<thead>
<tr>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time: 8-10 min</td>
</tr>
<tr>
<td>Cost: R105k/m</td>
</tr>
<tr>
<td>Risk: High</td>
</tr>
</tbody>
</table>

Diagram:
- Reseller
- Data Source 1
- Data Source 2
- Retail Service Provider
- Outsourced Software Support
- Network
- Data Feed & DSS
- Manual Transaction Feed
- Initiator
- Market place
- Regional Office - Broker
- Broker - HO Trading Room
Example (After)

Portfolio

<table>
<thead>
<tr>
<th>PRODUCT LINE</th>
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<tbody>
<tr>
<td>Trading</td>
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Project Portfolio

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<tr>
<td>Project X</td>
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</table>

Business Case

<table>
<thead>
<tr>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time: real time</td>
</tr>
<tr>
<td>Cost: R30k /month</td>
</tr>
<tr>
<td>Risk: Controllable</td>
</tr>
</tbody>
</table>

Diagram:

- Initiator
- Data Feed & DSS
- Transaction Feed
- Network
- Broker - gateway
- Market place
- Outsourced Software Support
A formal definition for process change:

A process is a group of related tasks which creates value.

The method for moving from an AS-IS state into a TO-BE state to improve performance, by means of rethinking and redesigning current business processes.

Achieve breakthrough

Cost Quality Time Service

Going to the root of things

Design of new value adding processes

A process is a group of related tasks which creates value
Core Understanding of process

- How do we change?
- What is the impact of change on the organisation?
- What is a process?
- What is the required journey?
- Walk the ladder of process engineering
The Cycle of Change

- Set performance objectives
- Establish baseline
- Diagnose performance
- Evaluate improvement opportunities and investment options
- Design
- Implement
- Evaluate
Impact of Change?

Shareholder

Management Systems

Structure

Processes

Products

Resources

Customers

Vendors & Partners

demands
requires
reinforces
fosters
Supports
Supports
enables
enables
The scope of change: The Business Lifecycle

**BIRTH OF SYSTEM**
What are the strategy of the organisation?
What are the objectives, goals and actions of the organisation?
How do we manage implementation?

**REVISE SYSTEM**
How do we manage growth and change over time?

**PRODUCT DESIGN AND PROCESS SELECTION**
What is the form of the product?
How do we design the service?
How do we develop it?
What technology do we require?
How do we achieve quality?

**MANAGE THE SUPPLY CHAIN**
How do we manage the supply chain?
How do we manage suppliers & purchasing?
How do we forecast demand?
How do we manage day-to-day activities of planning, scheduling and operations?

**DESIGN THE SYSTEM**
How much capacity?
Where should operations be located?
How will jobs be performed and measured?
How will workers be compensated?
How do we measure learning?
Process

- A process is a set of activities, which when executed, achieve a *business outcome*.
- Processes *cross functional and organisational boundaries*.
- The most interesting about a process is the outcome it produces.
Journey of Change

MANAGE CHANGE

Educate, train, communicate, involve and do

CHANGE ACTIVITES

Innovate & Lead
2-3 months
Case for Action
As-Is
Vision & TO-BE
Business Case

Implement & Manage
6-12 months
Release every 3
Design
Migration Plan
Lab
Pilot
Roll-out

Improve & Do
Continuous
Continuous Improvement Program
Measures
Reward & Recognition
Discovering processes.....

TO-BE

Organisation

Jobs

Skills

Tasks

Outcome

Deliverables

AS-IS

Org Structure

Jobs

Tasks

skills

Processes are not considered when organisation change - thus leads to functional organisations

This side results in jobs and organisational structures that reflect natural work processes

Thank you for driving carefully through the village.
PROJECT ORGANISATION

- The Business Process Person
- Roles for process change
- Groups of tools & techniques
- Basic building blocks for success
- Program execution
The BP Person

VISIONING

LOGICAL ANALYSIS & DESIGN

PHYSICAL DESIGN

IMPLEMENTATION

Financial Engineering

Business Architectures

Organisational Development

Strategy

Project management

Costing

Facilitation

Simulation

Business Modelling

Workflow

Application Development

Strategic Process Planning

Strategic Process Planning

Business Modelling

Workflow

Application Development

Financial Engineering

Business Architectures

Organisational Development

Strategy
Roles for Process Change

- Visioning & Integration
- Process Analyst
- Process Engineer
- Physical Design
- Implementation
- Logical analysis & Design
- Business Engineer
- Business Specialist
- Project Manager
Groups of Tools & Techniques

Group Techniques
- Problem Solving
- Role Plays
- Focus Groups
- Training workshops
- Facilitation

Improvement Techniques
- QFD
- Best Practice/Benchmarking Industry “guru”
- Activity Based Costing

Business Modelling
- Simulation
- Business Architectures
- Templates

Process Strategy
- Integration
- Design
- Budgeting

Project Management
- Planning
- Thinking
- Resource Allocation
- Project Planning

Industry "guru"
Basic building Blocks

Process-focused teams

Capability development centres

Dedicated leaders

Coach  Property Dev.  Change leader

SLD  Process  Strategy

Agile technology

BPM and the supply chain
RUNNING THE PROGRAM

Process-focused team

Sponsors
Steering Committee
Core Process Team
Work Teams
Specialist Teams

Center of Excellence

Financial Engineering
Business Architectures
OD
Strategy
Process Engineering
Project Management
PART II: Enabling Business Process Management
**SC Perspective**

**Corporate Strategy**
Focus: Existence/Survival

**Business Strategy**
Focus: Distinctive competence
Cost leadership
Product Differentiation
Positioning

**Functional Strategies**
Marketing
Finance
Human Resources
Operations
Facilities
Research & Development

Focus: Competitive Priorities
(Cost, Quality, Flexibility, Delivery)

**Operations** – solution implementation lifecycle and business architecture

**Life cycle**
- Innovate Design
- Implement Solution
- Improve Operations

**Business Architecture**
- Design Rationale
- Control
- Structure
- Process
- Resource
- Product

**Supply Chain Functions and Delivery Channel**

**Satisfied Customer**

Version_1.PPT

BPM and the supply chain

39
Assessment of Process Capability

### Levels

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Optimised</th>
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<tbody>
<tr>
<td>Capability exists for continuous improvement of process performance. Technology and process improvements are planned and managed as ordinary business activities.</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Managed</th>
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<tbody>
<tr>
<td>Processes are quantifiable and predictable within measurable limits. Predict trends in process, product and service quality. High quality processes - process capacity can be managed and root causes of errors effectively addressed.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 3</th>
<th>Definable</th>
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<tbody>
<tr>
<td>Capability is standard and consistent. Process/software engineering and management activities are stable and repeatable. Common, organisation-wide understanding of activities, roles and responsibilities exists in defined business processes.</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Level 2</th>
<th>Repeatable</th>
</tr>
</thead>
<tbody>
<tr>
<td>An effective process which is practiced, documented, enforced, trained, measured, and able to be improved.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capability is a characteristic of individuals, not the organisation. Process can be repeated if same competent individuals are assigned. Success depends on competence and heroics of individuals.</td>
<td></td>
</tr>
</tbody>
</table>
Enterprise Portfolio Approach

Why are we doing?
Balanced Scorecard

How are we doing?
Decision Support

Change Initiatives

What should we be doing?
Business Engineering

What do we have?
Business Architecture
The Business Vision

Financial Perspective

“If we succeed, how will we look to our shareholders?”
- Profitability
- Growth
- Shareholder Value

Customer Perspective

“To achieve our vision, how must we look to our customers?”
- Price
- Service
- Quality

Internal Perspective

“To satisfy our customers, at what processes must we excel?”
- Cycle Time
- Productivity
- Cost

People Perspective

“To achieve our vision, what culture and people will we need?”
- Market Innovation
- Continuous Learning
- Intellectual Assets

“management system which integrates an organisation’s strategic operating objectives with balanced performance measures as a basis of monitoring planned achievement and an indication of future performance”
Decision Support

Decision Support Systems, Tools and Techniques

Warehouse

Source

OPERATIONAL SYSTEMS

FINANCIAL SYSTEMS

CUSTOMER SYSTEMS

HR SYSTEMS

Version_1.PPT

BPM and the Supply Chain
## Business Architecture

### SCOPE (CONTEXTUAL)
- **Planner**
  - **DATA**: List of Things Important to the Business
  - **FUNCTION**: List of Processes the Business Performs
  - **NETWORK**: List of Locations in which the Business Operates
  - **PEOPLE**: List of Organizations Important to the Business
  - **TIME**: List of Business Significant to the Business
  - **MOTIVATION**: List of Business Goals/Strat

### ENTERPRISE MODEL (CONCEPTUAL)
- **Owner**
  - **DATA**: Business Entity, Business Process Model
  - **FUNCTION**: Business Process Model, Logistics Network
  - **NETWORK**: Business Location, Business Location Linkage
  - **PEOPLE**: Major Organizations, Work Unit
  - **TIME**: Major Business Event, Business Event Cycle
  - **MOTIVATION**: End, Business Objective, Means = Business Strategy

### SYSTEM MODEL (LOGICAL)
- **Designer**
  - **DATA**: Data Entity, Data Relationship
  - **FUNCTION**: Application Architecture, Distributed System Architecture
  - **NETWORK**: IS Function, Business Location Link
  - **PEOPLE**: Role, Work = Deliverable
  - **TIME**: System Event, Component Cycle
  - **MOTIVATION**: End, Structural Assertion, Means = Action Assertion

### TECHNOLOGY MODEL (PHYSICAL)
- **Builder**
  - **DATA**: Segment/Table, Data Relationship
  - **FUNCTION**: System Design, System Architecture
  - **NETWORK**: Computer Function, Background Software Link
  - **PEOPLE**: User, Work = Screen Format
  - **TIME**: Execute Cycle, Component Cycle
  - **MOTIVATION**: End, Condition, Means = Action

### DETAILED REPRESENTATIONS (OUT-OF-CONTEXT)
- **Sub-Contractor**
  - **DATA**: Field, Language Stmt
  - **FUNCTION**: Control Block, Identity Work = Job
  - **NETWORK**: Architecture Link, Security Architecture
  - **PEOPLE**: Identity, Work = Job
  - **TIME**: Interrupt Cycle = Machine Cycle
  - **MOTIVATION**: End, Sub-condition, Means = Step

### FUNCTIONING ENTERPRISE
- **e.g. DATA**: DATA
- **e.g. FUNCTION**: FUNCTION
- **e.g. NETWORK**: NETWORK
- **e.g. ORGANIZATION**: ORGANIZATION
- **e.g. SCHEDULE**: SCHEDULE
- **e.g. STRATEGY**: STRATEGY
PRINCIPLE: How do we do it?

Project Management

Manage Change

Educate, train, communicate, involve and do

Innovate & Lead
2-3 months
Case for Action
As-Is
Vision & TO-BE
Business Case

Implement & Manage
6-12 months
Release every 3
Design
Migration Plan
Lab
Pilot
Roll-out

Improve & Do
Continuous
Continuous Improvement Program
Measures
Reward & Recognition
Change Management

Return (Margin) = Sales - COS = GM - Overhead = NM

Product/Service

End-2-End Business Processes

Complete supporting Business Architecture

Objectives
- Current level
- Required level
- Benchmark level

Required Change

Required Resource

Projects

Project Portfolio Management
PART III: CASE STUDY

INTRODUCTION

CONTENT MANAGEMENT

BPM IMPLEMENTATION
PART IV: Conclusion

Closing remarks

Q&A
Q&A